

***United States Court of Appeals
for the Second Circuit***



JOINT APPENDIX

76-4151

76-4153

UNITED STATES COURT OF APPEALS
FOR THE SECOND CIRCUIT

No. 76-4151, 76-4153

GREENE COUNTY PLANNING BOARD, et al.

Petitioners

v.

FEDERAL POWER COMMISSION,

Respondent

POWER AUTHORITY OF THE STATE OF NEW YORK, et al.

Intervenors

DEFERRED JOINT APPENDIX

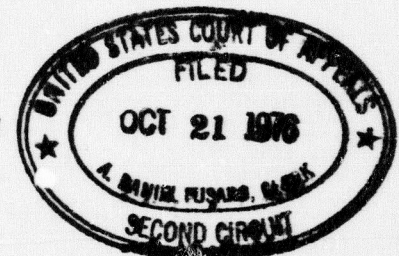
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TABLE OF CONTENTS

	<u>Page</u>
Initial Decision on Proposed Gilboa-Leeds Transmission Line (July 1, 1974)	A1 (R7045)
Opinion No. 751; Opinion and Order Affirming Initial Decision Authorizing Construction of Proposed Gilboa-Leeds Transmission Line (January 29, 1976)	A64 (R7297)
Application for Rehearing of Intervenors Town of Durham et al.	A99 (R7333)
Application for Rehearing, Petition to Reopen the Proceeding and Motion for a Stay of Intervenors Greene County Planning Board and Town of Greenville	A102 (R7337)
Opinion No. 751-A; Opinion and Order Denying Rehearing, Reopening and Stay (April 27, 1976)	A110 (R7347)
Application for Rehearing of Greene County Planning Board and Town of Greenville	A118 (R7356)
Order Denying Rehearing With Respect to Reopening and Stay	A120 (R7359)

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

SEP 25 1976

Power Authority of the State
of New York

)
)
Project No. 2685

INITIAL DECISION ON PROPOSED GILBOA-LEEDS
TRANSMISSION LINE

(July 1, 1976)

BEST COPY AVAILABLE

APPEARANCES

Thomas F. Moore, Jr., Scott R. Hill, and John C. Mason for
the Power Authority of the State of New York

Robert J. Wafin and Neil E. Headleman for Greene County
Planning Board and Town of Greenville

Donald Tinschull for Joe Segelman, Intervenor

Barry H. Garfinkel for Town of Durham, New York, Association
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Marshall Hall, Barry H. Garfinkel, Alfred Gallhorn, Arthur
Goldschmidt, Walton McClure, Earl Morse, and Agnes O'Hall,
Intervenor

Mark Pellar for the Town of Westerlo

Alfred S. Forayth for the Sierra Club

John B. Lane, Robert W. Hannon, and James Whitfield, Jr., for
the Staff of the Federal Power Commission.

INTRODUCTION

LEWIS, Presiding Administrative Law Judge: On June 6, 1969,
the Commission granted a license to the Power Authority of
the State of New York (PAONY) to construct and operate the
Blackba-Clifton (B-C) 1,000,000 Kilo-watt Turbine Storage
Project No. 2685 (Project) (41 FPC 112) some 40 miles south-
west of Albany. By order issued April 10, 1970, (43 FPC 521)

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the location and design of two of the three 345 kv transmission lines of the project were approved, one northeast to New Scotland near Albany and the other southeast to Pausan. However, the Commission reserved decision as to the design of the proposed Gilboa-Leeds transmission line and its route from the project switchyard in Schoharie County, New York, to the Leeds substation in Greene County near Catskill, New York (43 FRC 521, 522).

The pumped storage project has been constructed and is now producing electricity. The two transmission lines previously approved are in operation. This proceeding involves the proposed Gilboa-Leeds line.

Intervenors include the Town of Burke, New York, and the Association for the Preservation of Dutchess Valley (Burke) (based on a joint petition including, in addition, eight individuals); Greene County Planning Board and the Town of Greenville (Greene County), the Sierra Club, the Town of Westerlo (Westerlo), Cornwallville Conservation Corporation (Cornwallville), Joe Segelhorn, Representative Hamilton Fish, Jr., and Citizens to Preserve the Hudson Valley.

On December 4, 1970, PASHY filed with the Commission, two alternative proposals, later designated Routes A and B, for routing the Gilboa-Leeds line (see Item by Reference 10). And in an environmental report (Ex. 33) filed and circulated among commenting agencies on March 26, 1971, as then required by Commission regulations (44 FRC 1531) implementing the National Environmental Policy Act of 1969 (NEPA), PASHY designated three other transmission corridors it studied as possible modifications, Routes C, D, and E.

A prehearing conference was held on June 22, 1971, pursuant to Commission order issued May 4, 1971. Thereafter, public hearings were held in Albany, New York, for the convenience of local parties, individuals, and groups, from November 9 to November 12, 1971. Further sessions continued in Washington, D. C., at intervals from December 8, 1971, to January 7, 1972, during which PASHY and Staff witnesses were presented and cross-examined.

On January 14, 1972, in response to a petition filed by Greene County, the U.S. Court of Appeals held that "the Commission was in violation of NEPA by conducting hearings prior to the preparation by its staff of its own impact statement . . .". See Greene County Planning Board v. F.P.C., 1/ 455 F. 2d 412, 415, 420 (CA2, 1972), cert. denied, 409 U.S. 849 (1972). The court explained: (p. 422)

. . . we deem it essential that the Commission's staff should prepare a detailed statement before the Presiding Examiner issues his initial decision. Moreover, the intervenors must have a reasonable opportunity to comment on the statement. But, since the statement may well go to waste unless it is subject to the full scrutiny of the hearing process, we also believe that the intervenors must be given the opportunity to cross-examine both PASHY and Commission witnesses in light of the statement. 'Often individuals and groups can contribute data and insights beyond the expertise of the agency involved.' . . . We leave to the Commission to determine the most efficient procedure for meeting this mandate.

On November 6, 1972, the Commission reopened the proceedings in an order requiring further proceedings to implement NEPA as interpreted and applied in the Greene County I decision (48 FCC 978) and, in Order No. 415-C, issued December 10, 1972, amended its general rules and regulations to comply with the court's mandate. The Commission ordered: (1) that the Staff prepare and circulate for comment a draft environmental impact statement (DEIS); (2) that a Staff final environmental impact statement (FEIS), be filed and circulated after comments; and (3) that the FEIS be introduced in evidence at a further hearing at a time sufficient for the parties to prepare cross-examination on the FEIS.

Staff's DEIS was filed on January 15, 1973, and its FEIS (P. 71) on May 21, 1973. On July 2, 1973, hearings resumed

1/ Hereinafter cited as Greene County I.

in Washington, D. C., with cross-examination of Staff and PASNY witnesses in respect of the FEIS and continued intermittently in Washington, D. C., and Albany, terminating in Washington, D. C., on September 19, 1973.

On December 27, 1973, the U.S. Court of Appeals for the Second Circuit denied motions for a stay of proceedings and granted FPC's motion to dismiss a petition for review dated October 16, 1973 (Greene County Planning Board v. F. P.C., 442 No. 73-2553, (Greene County II)).

The court 1/ observed in pertinent part (slip opinion p. 998):

The Federal Power Commission has both fulfilled its statutory obligation and sufficiently complied with this Court's order by providing for an Environmental Impact Statement. The draft EIS was subjected to criticism as is evidenced in the motion papers. The parties are free to comment on any claimed inadequacy in the FEIS. * * * there can be no final appealable order until some decision has been handed down by the administrative hearing officer and/or the FPC. At that time the adequacies or deficiencies of the EIS or all other matters relative to a decision on the merits can be argued.

Briefs were filed thereafter by PASNY, Durham, Greene County, Cornwallville, and Staff. Joe Segelman joined in the brief filed by Durham and the Public Service Commission of the State of New York (PSC) although not a party, filed a brief on limited issues. Briefing was concluded on April 24, 1974.

POSITION OF THE PARTIES

Intervenors maintain generally that the proposed line from Gilboa to Leeds is not needed, that any public benefit

1/ Mansfield, C. J. dissenting.

is outweighed by harm to the environment, to the scenic beauty and historical resources of the Hudson Valley, and that an underground line is a less damaging alternative than an overhead line. They also suggest that Routes C or B are less objectionable in terms of environmental impact than Route A.

Finally, Interveners argue that the requirements of NEPA have not been complied with in this proceeding and, in any event, they have been denied a full, fair and impartial hearing.

Applicant insists that a minimal 345 kv line from Gilboa to Leeds is necessary to deliver reliable project power to the interconnected transmission system that supplies upper New York State and the New York City area, that either Routes A or B, as modified, meet all appropriate standards without serious adverse environmental impact, that undergrounding is not a desirable or feasible alternative, and that the hearing and record made herein fully comply with NEPA, the Commission's regulations, and the requirements of due process.

Staff concludes that the public interest requires an overhead transmission line between Gilboa and Leeds along either Route A-1 or B-1, that the FEIS complies with all requirements, and that Interveners have had a full and fair hearing.

CONCLUSIONS

The pending application seeks approval for the design, location, and construction of a single circuit 345 kv transmission line from Gilboa to Leeds. As detailed below, I have concluded that a direct line to Leeds is needed now to carry stable and reliable project power to the distribution systems of PASNY's customer companies, the interconnected transmission system, and load centers throughout the state, particularly in the greater New York City metropolitan area. A single 345 kv Leeds line is presently needed to complete project requirements.

However, Section 10(a) of the Federal Power Act and NEPA impose a broader standard and definition of the public interest than what is needed to complete the project covered by the pending application. Section 10(a) requires in substance that the Leeds line cannot be authorized unless it be "best

adopted to a comprehensive plan" of development; and NEPA requires that, in the formulation of a comprehensive plan, environmental factors be given at least equal consideration with economic, engineering, and other technical factors in the decision making process.

The application of these broader statutory standards requires that the Leeds line be designed so as to be able to carry far larger quantities of power than that generated or required solely by the B-G project. Comprehensive planning requires consideration of the possibility that an additional pumped storage project may be built on Schoharie Creek at Breckhoben about six miles downstream from the B-G project, for which an application was filed on March 30, 1973; or that additional fossil or nuclear fueled base load generating facilities may be built in the vicinity of Leeds or in the adjacent Hudson Valley area. These possibilities are thoroughly explored in the record including Staff's FEIS (Ex. 71, p. 115-124). They indicate strongly that the Leeds line should be capable of carrying two 345 kv circuits convertible to one 765 kv circuit.

The ultimate decision as to whether any, some, or all of these plants will be built is within the jurisdiction of various public regulatory bodies including the FPC, the AEC, and the PSC. During the course of this entire proceeding, the record has been updated from time to time to show the current state of FASNY and New York State agency studies and planning on related area generating facilities and transmission line network (see Appendix C to Ex. 71, showing the state 765 kv grid as planned by 1991). These studies indicate that a 765 kv line will be needed from Gilboa to Leeds, whether or not a Breckhoben project is licensed.

The environmental impact of the higher voltage line is substantially less than the incremental impacts of multiple lower voltage lines required to transmit the same electric power. One 765 kv circuit is capable of transmitting four to six times more power than a 345 kv circuit with a large reduction in the amount of land required for transmission corridors and construction. Consequently, it is environmentally desirable that long range planning requirements and contingencies be met by a single circuit 345 kv line on

conventional steel lattice towers, except where pole H-frame towers may be required, capable of supporting two 345 kv circuits, capable of later conversion to a single circuit 765 kv line on the same 250 foot right-of-way using the same structures as are now necessary for the single 345 kv Leeds line.

I have also concluded that PASH Route B 1/ is, on balance, the best route with the least adverse environmental, visual and aesthetic impact. Undergrounding the Leeds line is an unsatisfactory, costly, less reliable alternative to an overhead line with greater adverse ecological damage.

Staff's FEIS (Ex. 7A) fully complies with NEPA, the guidelines and regulations issued with respect to its implementation, the Greene County decision and other judicial interpretations of the Act and its requirements cited elsewhere in this opinion. The environmental factors involved in the proposed line and its alternatives are analyzed objectively in good faith and in great detail in the FEIS and the entire record on an equal footing with economic feasibility, engineering and other conventional considerations affecting transmission line planning, design, and construction. The input of many disciplines has been considered and utilized by Staff in formulating a rational environmental impact statement.

Finally, every effort was made to conduct a fair, impartial and full hearing on the issues presented and to develop a complete record without undue delay and irrelevant or repetitious questions and argument. Intervenor's allegations to the contrary are not supported by the record and their various procedural appeals and motions, detailed below, including those demanded by the Commission for reconsideration in this initial decision, are denied.

Underlying this extended proceeding is the reality of a completed project whose power is critically required to supply New York State and City loads. The Leeds line is needed now

1/ See Appendix A (MAP) and description in Finding No. 157.

to carry the required peaking power to market at lower cost and adverse environmental impact, greater efficiency and reliability, than any alternative proposal or source of energy.

NEED FOR THE LINE

Interrogators argue that the proposed 345 kv circuit third line to Leeds is not needed and is not a primary line as defined in Section 3(11) 1/ of the Federal Power Act. They maintain that the project can be and is being operated at maximum load with the two existing lines. PASNY asserts that a direct line to Leeds has always been needed for the reliability and stability of the project and is a necessary component of the project in the expert opinion of every engineer who participated in planning the project or who testified in this proceeding. 2/

PASNY's consulting engineers originally proposed two transmission lines -- one southeast to Leeds and another southeast to Fraser (Tr. 898). The Planning Committee of the New York Power Pool recommended an additional line northeast to New Scotland (Albany) to insure reliability and stability (Tr. 376). The Power Pool Committee unanimously endorsed all three lines as part of the project, affirming the conclusions of PASNY, Staff and consulting engineers, as well as FPC's independent evaluation.

The Leeds line is a primary project line needed now to bring project power to the distribution system of Central Hudson Gas and Electric Corporation (Central Hudson) and to

1/ " . . . The primary line or lines transmitting power therefrom to the point of junction with the distribution system or with the interconnected primary transmission system . . . "

2/ These include John W. Easton, PASNY's Director of Power Operations (Tr. 2038-43); George C. Leiber, planning engineer (Tr. 372-395); Francis H. Fullerton, design engineer (Tr. 2015-2118); Eric T. E. Gross, Professor and Chairman of Electric Power Engineering, Rensselaer Polytechnic Institute (Tr. 396-409); and Mr. Joseph J. A. Jessel, retired Asst. Chief, FPC Bureau of Power (Tr. 1151-1279, 2651-2698). A complete list is contained in Staff Brief p. 12.

the interconnected north-south primary transmission system servicing the New York City metropolitan area. It is therefore, potentially the most important of the three project primary lines because it is the shortest route from the project to the New York City area. However, the need for project power is statewide and the three lines are necessary to meet this need.

PASHV is authorized by State law to construct "hydro-electric pumped storage projects . . . to supplement the supply of electric power and energy . . ." in the state (Section 1005, New York Public Authorities Law). The output of the Project is used throughout the state as critical demands require regardless of the locations of the territories of the utilities to which the power is sold and the amounts sold to each. Control of the flow of the power is exercised by the New York Power Pool.

The 1,000 meg watt minimum fully operating capacity of the Project represents over 4% of the total installed generating capacity of the state (23,071 mw) and approximately 11% of the total installed generating capacity of Consolidated Edison Company of New York (Con Ed) (9,609 mw October 1973), the principal supplier of power in New York City and Westchester County. New critical loads occur in the upstate area in the winter and in the New York City area in the summer.

The 345 kv line from Gilboa to Fraser connects with a New York State Electric & Gas Company (NYSEG) 345 kv line which proceeds from Fraser westerly through Calkdole in the Binghamton area along New York's southern border to the Homer City coal region of Pennsylvania where the company is part owner of a large generating plant. It then turns to the south to connect with 345 kv lines of the Orange and Rockland Utilities Company (Orange and Rockland) and Con Ed which when completed will connect with lines to and in the New York City area and New Jersey. The 345 kv lines south of Fraser to Rosapo are known as the Southern Tier Interconnection (see Op. No. 72-2, issued January 25, 1972, N.Y.P.S.C.). This now includes a single circuit 345 kv line from Fraser to Coopers Corners, a 345 kv line between Rock Tavern and Roseton, and Roseton north to Leeds.

PASNY's 345 kv line from the Project northeast to New Scotland (Albany) connects with 345 kv lines of the Niagara Mohawk Power Corporation (Niagara Mohawk) which proceed across the middle of the state to Utica where they connect with 345 kv lines of PASNY which extend to its generating projects at Oswego and Niagara Falls. Connecting lines proceed to the extreme northeast section of the state as well as to the south and to Pennsylvania.

From Albany south to Leeds there are only two 345 kv lines; from Leeds to the New York City area there are three. One 345 kv line proceeds south from Leeds on the west side of the Hudson River and the other two cross to the east side of the river at Leeds and proceed south. The line on the west side is complete to Rock Tavern and under construction from there to Ramapo. The Leeds line, together with PASNY's New Scotland line will provide an essential third 345 kv circuit from Albany to Leeds (see Appendix B to Ex. 71).

Leeds is the northern terminus of the Central Hudson territory (one of the contractors for project power) on the west side of the Hudson. Without a line from the Project to Leeds, PASNY would have no direct connection with that company.

The generation capabilities of the utilities which serve the New York City area do not provide the amount of reserves necessary to supply the needs of the area in times of maximum loads when a substantial amount of generating capacity is out of service. 1/ The area relies upon PASNY and the upstate utilities, which are also members of the New York Power Pool as well as on the Pennsylvania, New Jersey, Maryland (PJM) Power Pool, the New England Power Pool, and Ontario-Hydro, to supply much of its needs in times of heaviest demand even when substantially all the generating facilities in the New York City area are in operating condition.

1/ For the summer periods 1970-1972 a daily average of about 23% of Con Ed's installed generating capacity was unavailable because of forced outages or otherwise unavailable.

The amount of power which can be delivered to the New York City area from upstate is limited by the transmission situation south of Albany. Currently, the major bottlenecks are between Albany and Leeds, between Leeds and Pleasant Valley, where Con Ed's transmission facilities join with Niagara Mohawk's, and between Pleasant Valley and Milwood in Westchester County. The Leeds line is needed now to transmit power from the Project to the New York City area via Pleasant Valley on a day-to-day basis (Tr. 3160-62).

Intervenors' arguments to the contrary are not persuasive. They assert that each one of the existing two 345 kv lines is "capable of carrying more than the full generating capacity of the plant" (Greene County brief, p. 11). The line's thermal capability of 1279 mva (Tr. 1011-1012), representing the amount of power the line can carry without overheating, is irrelevant insofar as the ability of these lines to carry stable and reliable project power to the load centers where it is needed or to the points on the interconnected system where such power can be received and transmitted to load centers (Tr. 389-390). For example, if New York City needed 1,000 mw of project power, taking it southwest to Fraser or northeast to New Scotland would not assure reliable transmission south to New York City when Niagara Mohawk's two lines from New Scotland to Leeds are in full use or when the Southern Tier Interconnection from Fraser to Ramapo is tied up by NYSEG and Orange and Rockland's requirements. In this situation, there would be no efficient and reliable means of moving project power south to the metropolitan area absent a Gilboa-Leeds line. Without the Leeds line in service, maximum project output will not be available when and where needed (Tr. 2975-6).

Moreover, the Project is not stable, as contended by Intervenors, without the Leeds line. Loss of the New Scotland line will result in a loss of at least half the plant generation and, if the condition continues for more than two seconds, the stability of the plant and the transmission system may be adversely affected (Tr. 2017). Adding a second set of circuit breakers, relays and signals in lieu of the Leeds line would cure only one stability problem -- a stuck breaker, and that only if all connected lines are in service and operating properly -- an assumption that is not supported by actual

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experience. There are other events ^{1/} which can cause instability in the system as well as the plant itself. The availability of the Leeds line will eliminate the need to reduce generation for the opening of the other lines and reduce the severity of oscillations and stresses on plant facilities thus maximizing plant output and reliability.

Intervenors also argue that the Leeds line "could not add transfer capability to New York City" (Greene County br. p. 17). This is true only if the transmission bottleneck south of Leeds continues. The Southern Tier Interconnection is moving ahead with authorized increases in capacity. The Leeds line can transmit project power by the shortest route to New York City at three of eight loads on the 345 kv line which extends from Leeds to Rochester to Rock Tavern to Ramapo to New York City (see Appendix B to Ex. 71).

The transmission situation south of Albany is summarized in part by the PSC in approving construction of the 345 kv Southern Tier Interconnection (Opinion No. 72-2 issued January 25, 1972) as follows: (p. 21-23)

From the Albany area, the 'backbone' line moves south crossing to the east side of the Hudson River and continuing through the Hudson Valley to the area of New York City. At the southern extremity the line interconnects with the PJM system and, through Consolidated Edison, with Long Island. Along the Albany-New York City leg, the backbone line interconnects with New England systems at several points. At the westerly extremity, the line provides the major interconnection of the New York system with Canada and a lesser connection with the PJM system; a secondary interconnection with Canada also exists in the area of Utica. The combined transmission facilities at present lack sufficient capacity and looped circuits of adequate capacity to constitute a firm network. The system is thus vulnerable to

^{1/} Summarized in Appendix A to PASNY reply Brief, p. 58-69 and see Tr. 3147-3150.

to interconnections capable of producing worldwide power transmission.

Reasonable standards of reliability require that
the State of New York must have a sufficient
by-pass capacity to handle any power that
might be imported from other sources.
and any such capacity must be available
to the State of New York.

Moreover, the existing system, and particularly its present North-South element, was shown to lack sufficient capacity to enable Consolidated Edison to import all the power it could, and should, obtain from other generating sources.

For example, the new generating stations already completed or under construction on Lake Ontario, and the pumped storage plants being built by the Power Authority of the State of New York (PAISON) at Okauchee, can be made available to Consolidated Edison for use in the State of New York. Such imports make for economy. They help also to curb air pollution in densely populated New York City where the health hazards of power plant emissions are compounded by emissions of other industries and by the fumes of automobiles.

The Southern Tier Interconnection, we find, will supply the added reliability and capacity to the transmission systems serving the southern part of the State. Its benefits will be available not just to Consolidated Edison but to all the interlocked systems.

* * *

The segment of the proposed line running from Ramapo to Rock Tavern--part of the overall connection with Binghamton-- will also form an integral part of the 345 kv bulk transmission system now taking shape on the west bank of the Hudson River. The major

new line now under construction, run from
Leeds to the Rock Tavern substation and area between
southward to the Rock Tavern substation. The
North-South leg of the Southern Tier Inter-
connection will continue the circuit southward
from Rock Tavern carrying it to Buffalo where
the Consolidated Edison and Orange and
Rockland systems are joined and where they
also connect with the systems comprising the
Pennsylvania-New Jersey-Maryland (PNJ) network.
The addition of the proposed further extension to
the Buffalo area will provide a direct link on
the side of the line to the Buffalo area.
It will be the responsibility of the owner of
any line between Albany and New York City.
(emphasis supplied)

Accordingly, I conclude that a Leeds line is necessary and should be authorized unless its adverse environmental impact is so substantial as to outweigh the transmission benefits of the proposed line.

PROPOSED ROUTES

Applicant's environmental report filed March 26, 1971, (Ex. 33) described five transmission corridors studied by PASHY as possible routes for an overhead 345 kv transmission line from Gilboa to Leeds. Two proposed routes, later designated A and B, were submitted on December 4, 1970, for Commission consideration. Consultation by PASHY with local agencies and Commission Staff led to the development of alternate routes C, D and E and suggested modifications of A and B, designated as A-1 and B-1 (Ex. 55-A).

Studies were also made and testimony was presented on the possibility of full or partial underground routes. Applicant presented testimony and exhibits on a fully underground route, designated Route X, and a less fully underground route designated as Route Y. Another alternative considered was a 345 kv single circuit overhead transmission line along Route A-1 with one or more underground segments. A 15.1 mile underground double circuit segment along Route A-1 in the Town of Berham was designated Route Z1, and a 13.0 mile underground double circuit segment along Route A-1 in the Town of Cairo

was designated Route 22. These routes and segments thereof are shown on Appendix F to Exhibit 71 and Exhibit 91. Staff also laid out a possible underground route described on page 84 of the FEIS and shown on Appendix F thereof (Ex. 71 and 91).

A detailed description 1/ of each route is contained in the Commission's Notice of Alternative Routes, dated May 18, 1973 (Appendix FF to Staff's Initial Brief). Generally, Route A and its various modifications run about 34 miles through Durham Valley and the Town of Durham. B as modified, about 36 miles in length, swings a short distance north of Durham Valley, and C, about 41 miles long, is the most northerly route proceeding largely through Albany County. Route D, about 35 miles in length, swings south of Durham Valley following Catskill Creek and Route E, the most southerly, proceeds close to State Highway 23 for about 35 miles in total length (Ex. 33, p. 23).

Intervenors, Greene County Planning Board and Town of Greenville and the Town of Durham, consider Route A, both as originally proposed and as modified, the worst of the proposed routes -- "an unmitigated disaster", 2/ destructive of the scenic beauty of the Durham Valley area. In the event a line is authorized, they prefer Route B-1 to A-1 on the ground that B-1 is less environmentally damaging than A-1, and the line could be better concealed because of the many ridges and shallow valleys in the dissected plateau area around the Town of Greenville.

PASNY and Staff disagree over the relative merits of their proposed modifications to Route A and find B-1 a better alternative than the other party's proposed modification of A.

I have concluded after a detailed examination 3/ and study of all the proposed routes and alternatives that Route B, as

1/ See Appendix A for map showing location of alternative over-head routes.

2/ Greene County brief, p. 73.

3/ Two inspection trips of the proposed routes were made by the undersigned in November 1971 and September 1973 with the aid, assistance, and participation of all parties to the proceeding.

modified B-1, is the superior proposal with the least adverse environmental impact. The most scenic, aesthetic, historical, and cultural values in the impact area are found in the Durham Valley and along the Susquehanna Turnpike looking south to the northern rim of the Catskills. Route B-1 swings north of Route A-1, where A-1 enters Durham Valley and is partially skylined against Mt. Pisgah and the Catskill Mountains. B-1 avoids Durham Valley, the Town of Durham and the Turnpike, taking advantage of the ridges and shallow valley in the dissected plateau area around Greenville for better concealment and less visual impact (Tr. 3734).

As noted by Durham witness Dr. David Yountel, an eminent geographer and historian " . . . the locating of transmission lines is not one of the major ecological disturbances" (Tr. 3067). The major adverse environmental impact is visual and aesthetic. This has been described dramatically as visual pollution "the obtrusive silhouette of high-voltage transmission towers and lines as they slash through forest and fields". 1/

The environmental witnesses 2/ concur generally in Professor Jureja's conclusion that Route B-1 would be "less visually damaging than Route A-1" (Tr. 3647).

In choosing between A and B as modified, the environmental and visual impact is the decisive factor because the differences in costs, engineering, and other quantifiable costs and

1/ U.S. News & World Report, May 6, 1974, p. 82.

2/ Sierra Club witness Alan Gussow (Tr. 3444).

Greene County witness Blackburn (Tr. 3956).

Cornwallville witness Dr. J. W. Abbuhl (Tr. 3469-R).

ber fits between the two routes, are relatively minor. 1/

Accordingly, I agree with Intervenor Cornwallville's conclusion that "the weight of the evidence indicates that RUSHY B-1 is the best route which is developed in the record" (Ex. p. 12).

"1. it travels along the Haldenberg Escarpment, a less prominent natural geographic feature on the northernmost edge of the affected area, in contradistinction to the other routes, (R. 2493-94; 2052-2109; 2002-03; 3754-55). 2. it travels at a lower elevation than the other routes and is, therefore, generally visible from fewer distant points (R. 2052-2109; 2493-94; 2002-03; 3754-55). 3. avoids itself of more screening techniques and other steps which tend to reduce visibility (R. 2550; 2002-03; 2006; 2009-2000). 4. and passes through an area of significantly less historic and scenic importance than the possible sites of F. J. Steel Mod. A-1 and RUSHY A-1. (R. 2870; 2000; 3064-65; 3412; 3647; 3956)."

1/	(1)	(2)	(3)	(4)
	345 kv Single Circuit Lattice Steel	345 kv Low Profile Double Circuit Lattice Steel	345 kv Double Circuit Convertible to 765 kv Single Circuit Lattice Steel	345 kv Double Circuit Convertible to 765 kv Single Circuit Pole H-Frame Steel
Route A	\$7,695,000	\$ 8,579,000	---	---
Route B	\$8,213,000	\$ 9,515,000	---	---
Route A-1	\$9,042,000 (*)	\$10,355,000	\$14,961,000	\$16,632,000
Route B-1	\$8,155,000	\$10,215,000	\$15,156,000 (**)	\$16,855,000 (**)

(*) Corrected from \$9,241,000 as shown in Exhibit 70-A.

(**) Corrected for error in cost per mile for land and land rights in Exhibits 67-A and 68-B.

C, D, and E are not practical, desirable, or preferable to A or B, as modified, on either environmental, engineering or economic considerations. C is 5-7 miles longer through populated Albany County, D makes numerous crossings over Catskill Creek, and E would have the greatest adverse visual impact skylining the higher Catskill elevations. F and G would double the line length by paralleling existing rights-of-way to New Scotland and Fraser, without the reliability of a third more direct route to Leeds.

Applicant and Staff differ on the precise routing of B-1 at both ends -- the Gilboa switchyard and the Leeds substation (see Appendix E of Staff brief). Coming out of the switchyard, Staff would lengthen the line 600 feet at an added cost of \$150,000 to avoid two roads and a pond. The roads are not heavily traveled and the environmental benefit of the lengthened line is questionable as against the straight line exit from the plant viewed from the visitors park adjacent to the switchyard. I see no clear benefit from the Staff modification.

PASNY and Staff also disagree over the approach to the Leeds substation. Staff would cross the New York State Thruway and U.S. Highway 9N about 1.6 miles north of the substation coming down the existing utility corridor east of Highway 9N. PASNY would cross the Thruway further south coming down the west side of 9N before crossing southeast into the Leeds substation.

PASNY asserts that the existing utility corridor can only accommodate a single 345 kv line and the proposed Staff line east of 9N would be visible to more people traveling north and south for a greater length of time, while its proposed route would be visible only to northbound travelers on the Thruway "for momentary glances from relatively few spots". PASNY also notes that Staff's routing would require cutting tree cover between 9N and Staff's proposed line location; while its proposed route to the west of 9N would be shielded from view by the low hilly terrain. The weight of the evidence and aerial observation of the area involved support the PASNY routing into the Leeds substation as visually less obtrusive and more suitable for a double circuit 345 kv or a single circuit 765 kv line.

A18

DESIGN

PASNY favors conventional steel lattice towers (see Ex. 71, Appendix K) alleging they are less difficult to construct, cost less, are easier to maintain, and are safer for maintenance personnel. PASNY asserts that pole H-frame towers are less desirable ecologically because they require deep and massive concrete foundations, a grass or cleared area around the tower site during construction, and heavy duty access roads. This results in greater disturbance of the terrain and vegetation and greater expense.

Consequently, PASNY objects to Staff criteria for the use of H-frame towers 1/ as requiring an excessive and unnecessary number. It proposes that H-frame towers not be required except where there is a clear view of the towers from a major road. Variations from Staff criteria should be allowed depending upon circumstances in the field such as soil conditions, aesthetics, use of roads, and safety factors.

1/ See Ex. 71, p. 186.

County	Road or Highway
Schoharie	Kingsley and Flat Creek Roads

Criteria for Selection of H-frame Tower

Any tower located within 1000 feet of and visible from, the roads.

Schoharie Greene	Route 3 - and Route 20, the Susquehanna Turnpike
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Any tower within 1000 feet of the Turnpike and visible*, but not sky-lined; and any sky-lined tower, visible and within 750 feet of the Turnpike.

Greene	Cornwallville Road, Rockwell Road, Harvey Street Road, Sunside Road, State 145, State 32, High Hill Road, and N.Y. Thruway
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Any tower within 1000 feet and visible* from the road.

* Upper half of tower, including crossarms are in full view from at least a 50 foot section of road or highway.

I concur in this more flexible approach in which specific recommendations can be made by an independent board of consultants (see Article 40) and ultimate disagreements, if any, resolved by the Commission.

WIDTH OF RIGHT-OF-WAY

PASNY and Staff differ on the size of the right-of-way required to handle the safety requirements of a double circuit 345 kv line convertible to a 765 kv transmission line. Staff feels 200 feet is adequate; PASNY insists on the need for 250 feet pointing to recent installations 1/ by Niagara Mohawk (250 feet), Hydro-Quebec (250 feet), Commonwealth Edison (250 feet) and Detroit Edison (250 feet). Applicant argues that the 50 foot reduction proposed by Staff would require a reduction in design span length from 1400 feet to 1100 feet to meet electrical clearance safety standards. This proposed reduction in span length would increase the number of towers by some 27% with a greater adverse environmental impact and cost without any countervailing benefit. PASNY's position is supported by the testimony of their transmission engineer Fullerton (Tr. 2004, 3653) and, in part, by Staff witness Dr. Jessel (Tr. 1207, 1624, 1647). Accordingly, I am recommending a 250 foot right-of-way as necessary to handle the safety requirements of the convertible line with the least long range adverse environmental impact.

UNDERGROUNDING

Undergrounding as an alternative to an overhead line finds no support in the record. All of the expert engineering witnesses, Dr. Eric Gross, E. Barrett Shew, and Dr. Jessel found it an unsatisfactory, costly, less reliable, engineering alternative to an overhead line with greater adverse ecological damage.

Construction would be more difficult and require more time and equipment for maintenance and repairs (Tr. 2234). The right-of-way would have to be stripped and, where public road could not be used, a heavy duty service road would be required. Staff environmental witness Hauck testified:

1/ Tr. 3653.

"Undergrounding would remove any adverse scenic effects of an overhead line but would do so at much greater cost of resources and could in my opinion cause a greater adverse environmental impact when the loss of additional lands and probable greater land erosion is considered."
(Tr. 1306)

Costs would run approximately ten times 1/ greater than an overhead line. The sole advantage of undergrounding the Leeds line in whole or in part is the lesser visual impact. This benefit is far outweighed by the greater ecological damage, higher cost, lesser reliability and relative inability of existing undergrounding technology to carry high voltage loads (Tr. 402-419) and greater problems of maintenance and repair.

COMPLIANCE WITH NEMA AND THE GREENE COUNTY DECISION

Intervisors argue that a license cannot be granted for the Leeds line because the Commission has failed to comply with NEMA, its guidelines thereunder, Order 415-C (37 F.R. 28412, 38 F.R. 20550) and the Greene County I decision, cited supra.

Specifically, they maintain that Staff FEIS (Ex. 71)

"is not a proper environmental impact statement because it (a) does not reflect a systematic, interdisciplinary approach, (b) is based on a false premise that only a transmission line terminating at Leeds can be considered, (c) fails to discuss the environmental impact of alternatives, (d) is too generalized and theoretical to be meaningful, (e) is essentially a brief for Staff's position, (f) does not contain any independent Staff analysis, (g) contains an excessive

1/ Dr. Jessel \$89,000,000 (Tr. 1277, Ex. 50). For cost estimates of overhead line see footnote on page 19, supra.

narrow definition of project scope and (h) fails to demonstrate independent Staff effort to develop alternatives to the proposed action" (Greene County brief, p. 25)

NEPA § 102(2)A requires the Commission to:

"utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man's environment."

Intervenors insist this requirement was violated by Staff's FEIS in that "practically the only detailed discussion in the whole document deals with engineering feasibility and cost" (Greene County brief, p. 26).

An examination of the FEIS does not support this conclusion. The FEIS considers fish and wildlife, water and aquifers, scenic and other values, land and vegetation, and its impact on humans ^{1/} (pp. 20-35). It contains a detailed analysis (pp. 88-91, 179-193, Appendix M-T) of the environmental impact of the various proposals and the alternatives based on field examinations and investigations, and Staff studies made by Forrest R. Hauck, fishery biologist and head of the Commission's Section of Project Environment and Conservation (Tr. 2253-2532), Samuel C. Sargent, geologist (Tr. 2224), Mr. Browder, landscape architect (Tr. 2530-84), Mr. Paquin, forester (Tr. 2584), Mr. Roseberry, wildlife biologist (Tr. 2605-49) as well as Dr. Jessel, the Staff engineering witness.

The interdisciplinary approach is also confirmed by Staff's successful effort to assist Greene County in obtaining the expertise of State agencies including the testimony of Mr. Burggraaf, a landscape architect employed by the PSC and

^{1/} Recreation, wildlife protection, management and enhancement are also discussed in the comments of the State of New York (p. 297-304 of Ex. 71).

its Chief of Transmission Facilities Certification (Tr. 3527) and Mr. King, civil engineer and principal environmental analyst for the New York Department of Environmental Conservation (DECOR). The views of these state agencies, as well as numerous local and Federal groups and agencies, are summarized and analyzed in the FEIS 1/ (pp. 141-193, Appendix H, Q, R, T).

The FEIS (Ex. 71) shows on its face that it contains the input and represents the end product of many experts with a great variety of talents from a wide range of disciplines. This conclusion was confirmed on cross-examination and is supported by the entire record. Staff's FEIS "brings environmental factors to an equal footing with economic, technical, and other traditional considerations . . ." and constitutes "an objective good faith compliance with the demands of NEPA". National Helium Corp. v. Morton (cited, *infra*, pp. 1002, 1005)

The terminal point at Leeds is not a "false premise", as suggested by Interveners, but an essential and logical requirement of an efficient reliable B-G project. Niagara Mohawk's 345 kv and 115 kv lines proceed south from Albany to Leeds, cross the Hudson, and go south to Pleasant Valley. Central Hudson's 115 kv lines to the south connect with Niagara Mohawk's lines to Leeds. In addition, Central Hudson has built a 345 kv line from Roseton to Niagara Mohawk's Leeds substation. As we have noted elsewhere, 2/ without the line to Leeds in service, maximum project output will not be available to the distribution system of Central Hudson and to the interconnected north-south primary transmission system servicing the New York City metropolitan area.

Interveners complain both that the project scope is too narrow in being confined to the Leeds line and not discussing

1/ "The cases hold that the comments are to be regarded as an integral part of the statement". National Helium Corp. v. Morton, 486 F. 2d 995, 1003 (1973), cert. den., May 13, 1974.

2/ See Section on "NEED FOR THE LINE".

all proposed generation and transmission projects related thereto and too broad in that the FEIS is too generalized and theoretical to be meaningful.

Between these two stools, argue Intervenor, the FEIS falls as an inadequate and defective statement. Intervenor's factual criticism is not supported by the content of the FEIS, and, their proposal is a formula for indefinite delay not comprehensive analysis.

The role of the FEIS "is to enunciate the environmental considerations for the benefit of the decision makers". 1/ That standard has been met in this proceeding.

The FEIS analyzes in great detail the environmental impact of the proposed Leeds line and its alternatives including the postponement of construction or no construction (p. 101-110). The environmental factors are discussed on an equal footing with economic feasibility, engineering, and other conventional considerations affecting transmission line planning, design, and construction. After a full discussion balancing the input of many disciplines and public policy concerns, alternatives, and interests, Staff concluded that the Leeds line was essential to bring reliable power from an already constructed pumped storage project to the interconnected grid and PASNY's customer companies.

Intervenor point out that PASNY filed an application on March 30, 1973, to build an additional pumped storage plant (Brookhaven) on the Schoharie Creek about six miles north of and downstream from the E-G Project, that PASNY is considering new base load plants to provide power for the Metropolitan Transportation Authority which operates New York City subways and various commuting lines far north as Albany, that a 765 kv network is being planned by the New York State Power Pool of which Leeds would be an essential segment, and that additional transmission lines are being planned south of Leeds. These are not adequately covered in Staff's R.E.G., insist Intervenor, and any decision on the Leeds line should be deferred for several

1/ National Helium Corp. v. Morton, cited, supra, p. 1003.

years pending a decision on the Brookhaven project, the location of new base load plants, and the final 765 kv transmission network configuration.

Consolidation of the completed B-G Project and the authorization for the third line with the proposed Brookhaven project would result in indefinite delay of the Leeds line which is needed now as a primary line for the B-G Project. Moreover, licensing of Brookhaven five to ten years in the future would not affect the optimum location or need for the Leeds line. 1/ The construction of Brookhaven, however, would make the Leeds line more valuable as a transmission line to the interconnected grid and require double circuiting. The present need for a primary 345 kv line will inevitably grow to require a double circuit 345 kv or a single 765 kv line. Similarly, the construction of new base load plants does not negate the present critical need for the primary 345 kv Leeds line to support the existing B-G facility; it can only accelerate the need for upgrading of the Leeds line and the use of such baseload plant or plants to transport peaking power. Staff has not disregarded impending plans for further power development but has determined after full consideration that such plans, if developed, can only enhance the present need for the Leeds line. As noted in the Natural Gas Corp. decision (cited supra)

" . . . The requirement 1/ should not be viewed as necessitating that the completion of an impact statement be unreasonably or interminably delayed in order to include all potential comments or the results of works in progress which might shed some additional light on the subject of the impact statement. Such a result would often inordinately delay or prevent any decision in environmental cases. The courts should look for

1/ Of NEPA, 42 U.S.C. § 4332(2)(C) to consult with and obtain the comments of other agencies.

1/ See Greene County I decision, p. 424.

adequacy and completeness in an impact statement, not perfection. E. D. F. v. Corps of Engineers, 470 F. 2d at 297. In this particular case this court expressed the opinion that an ultimate resolution of the issues involved in this case was urgent and should be expedited. 455 F. 2d at 657. The initial impact statement was not issued until May 16, 1972, and the Final Statement issued on November 13, 1972. To have delayed the statement any longer would have flown in the face of what we considered a reasonable time for preparation of the statement" (p. 1004). (Footnote added)

The alleged absence of independent Staff analysis or consideration of alternatives is equally unsupported by the record. Staff conducted detailed field investigations of the proposed routes consulting local authorities, including the Greene County Planning Board and DECEN (Tr. 3974-5), and suggested various modifications and alternatives which were considered during the course of this protracted proceeding (Staff Tr. p. 21-22, 62-66). The general nature of the countryside between Albany and Gilboa and between Athens and Gilboa was carefully studied by Staff in terms of natural resources, forest and trout streams, scenic roads, glens, and waterfalls, wetlands, ponds and other environmental factors relating to possible routes (Tr. 1288-1297, 1305-1312). The FEIS is a comprehensive and thorough document which carefully enumerates, considers, and weighs the totality of public benefits and costs incident to the proposed Leeds line, its routing, design, and proposed alternatives in full compliance with the requirements of NEPA, the Greene County I decision, and the Commission's implementing regulations, Order No. 415-C, as amended. Intervenor's objection that the FEIS is essentially a brief indicates their continuing disagreement with Staff's findings and conclusions, rather than the alleged inadequacy or insufficiency of Staff's analysis or compliance with NEPA.

Finally, I must again 1/ reject the contention that the Staff draft environmental statement was so deficient as to require a revised draft and a new hearing (Burham brief, p. 56). In Greene County II, GERC 1172 (CA 1973) the court held that the Commission "has both fulfilled its statutory obligation and sufficiently complied with this Court's order by providing for an environmental Impact Statement".

My comments to the Commission in the May 17, 1973, certification of the original ruling are equally applicable on review of the entire record and briefs.

The draft statement is not deficient or inadequate as a draft and represents a good faith effort by Staff to comply with the statute and regulations. I went on to point out that the draft is part of an administrative process which includes subsequent comments, possible revision, change and amplification before final submission and cross-examination. I noted that Intervenorors had refused to file any comments of their own on Staff's draft statement, that this refusal was unjustified, and would make it impossible to conduct an orderly proceeding.

The refusal is unjustified because the draft is sufficiently detailed and Intervenorors have all the information required to comment on the draft statement. Without the comments and advice of all interested parties and agencies, the Staff cannot consider their data and insights and make such changes or modifications it may deem necessary in its final detailed statement which will be offered in evidence at the hearing now scheduled for June 19, 1973. To this extent, Intervenorors' refusal to comment

1/ See Ruling dated April 19, 1973, denying Intervenorors' motion filed March 21, 1973, for an order directing Staff to revise, renotice and recirculate its draft environmental statement filed January 18, 1973.

inhibits Staff compliance with NEPA and Commission regulations."

As required in Greene County I, the procedures followed herein provided for an independent environmental investigation, a comprehensive analysis of environmental matters, and a meaningful consideration of the environmental issues involved (Order Denying Rehearing of Order No. 415-C, issued February 7, 1973).

CONDUCT OF THE HEARING

Intervenors argue that they have been deprived of a fair, impartial and full hearing and cite 24 alleged errors 1/ committed in the course of this extended process. The first instance cited -- "Summary Disposition of the Term of Durham's Motion Respecting Payment of Fees and Expenses" was ruled on after a full hearing on Durham's motion. That ruling was sustained by the Commission and the Court of Appeals in Greene County I. 2/ The court found that neither Section 309 nor Section 314(c) of the Federal Power Act authorized the Commission to pay such fees and expenses. Intervenors are objecting to the merits of the ruling not to the alleged denial of a fair hearing.

Similarly, there are numerous alleged errors based on adverse rulings restricting cross-examination, to avoid repetition, undue delay, and irrelevant questions. Nowhere do Intervenors show how they were prejudiced by the cited rulings, many of which involved serious reargument by Intervenor counsel of prior rulings, a refusal to accept adverse rulings on evidence or procedure, and the continuation of disruptive, unwarranted, and frivolous argument after such rulings had been made. In addition, Intervenor counsel

1/ See Durham brief, p. 69, Greene County brief, p. 80.

2/ "We would need a far clearer congressional mandate to afford the relief requested, especially in dealing with counsel fees, when Congress has not hesitated in other circumstances explicitly to provide for them when to do so was within the public interest" (p. 426).

delayed the progress of the hearing by ignoring directions to file their prepared testimony and exhibits on date scheduled by the undersigned 1/ and in the form required by the Commission's rules, failing to appear at a conference on January 28, 1972, to discuss procedures to be followed in the light of the Greene County I decision, refusing to file comments on Staff's cross-examination statement, 2/ and delayed appearances for cross-examination of Staff and PSMV witnesses. In retrospect, it is difficult to avoid the conclusion that some Intervenor counsel engaged in a course of conduct designed to delay the hearings as long as possible because of the "direct financial benefits . . . to private land owners, the County of Greene and the Town of Ketchikan, Greenville, Cairo and Achass from continued opposition" (see letter dated April 25, 1972, marked Exhibit A attached to memorandum filed October 18, 1973, in opposition to Interveners' Appeal from Briefing Schedule). This may be their right and duty to their clients but it does not justify claims of error based on efforts of the Presiding Judge to move the hearing to a conclusion.

A major source of alleged error and unfairness is the undersigned's denial on July 2, 1973, of Interveners' motions for an evidentiary hearing on the issue of suppression, for a subpoena to the Chairman of the PSC, to PSMV to compel discovery in aid of the alleged suppression investigation, to EPA, and to the Governor of New York. The Commission, by order dated October 2, 1973, remanded for reconsideration in this initial decision various appeals and motions in respect of these issues and earlier rulings.

The basic claim of "suppression" stems from procedures which were established by the State of New York for

1/ The prepared testimony of Greene County witness Blackburn was not filed until the last two days of the hearing, September 18 - 19, 1973, one day prior to his cross-examination on the last day.

2/ See Ruling dated May 17, 1973, on Interveners Notices of Appeal, etc.

responding to requests by Federal agencies pursuant to NEPA. The agencies of the State of New York were directed by the Governor to coordinate their comments through a single entity. Under these governing directives, DECOR was designated as the coordinating agency for the submission of state comments in all cases except where state law expressly gives the PSC responsibility for determining the environmental compatibility of certain comments, an exception which includes power transmission lines of the nature involved in the present proceeding.

Pursuant to such procedure, the Chairman of the PSC by letter of June 20, 1971, as modified on August 20, 1971, submitted the views of the State of New York on PSCNY's original environmental statement (Ex. 33). Similarly, the Chairman of the PSC on March 14, 1973, again submitted the comments of the State of New York in connection with the Staff's draft environmental statement which had been sent to a number of New York State agencies for comment by the Secretary of the Federal Power Commission on January 15, 1973. In both cases the letter from the Chairman of the PSC made clear that the comments reflected a synthesis of the views of a number of state agencies. In neither case were the written views of any individual agency of the State of New York attached.

On May 3, 1973, Greene County filed a pleading which incorporated a copy of a letter of March 13, 1973, from the First Deputy Commissioner of DECOR to the Director of the Office of Environmental Planning of the PSC setting forth, for the PSC's consideration in preparing the coordinated comments for the state, the views of DECOR. The motion of the Town of Durham for a hearing on the so-called issue of suppression was based upon the fact that this letter and the submissions of the other state agencies which were part of the PSC coordination effort, had not been submitted by the PSC to the Commission along with the PSC Chairman's letter setting forth the views of the State of New York. I ruled at a hearing conference on July 2, 1973, (Tr. 2199) that there was no evidence of any suppression of DECOR comments or those of any other state agency and that, on the contrary, the PSC had merely performed the coordination job it was required to do under governing state directives. Subsequently, in response to the Town of Durham's request by letter of July 13, 1973, the PSC, by letter of July 20, 1973, made available to Durham, copies of all of

A30

the DECON communications to PSC. No rational basis exists for any further hearing or investigation on the claim of suppression.

In a Supplement to the Motion, filed by Durham on May 14, 1973, it is suggested that certain ex parte representations might have been made to the PSC by PASNY in connection with the preparation of its comments submitted in its letter of March 14, 1973. The PSC states categorically that no comments or other communications on the draft environmental statement were received by the PSC from PASNY between the time it was submitted to the various state agencies and the submission of the letter of March 14, 1973, to PSC.

However, as the record in this proceeding makes clear, a detailed memorandum of views was submitted to a number of the state agencies by Greene County.

Accordingly, I again conclude that the PSC did not suppress the comments of DECON or any other state agency, that Intervenor was accorded full discovery of all relevant and material communications by PASNY with New York State agencies, that no basis or need was shown for the issuance of subpoenas to Governor Rockefeller and his staff, or Chairman Swidler of the PSC, or the EPA. The renewal of these motions is, in substance, a collateral attack on the merits of the comments submitted by the State of New York and EPA, and, once again, must be rejected.

ADDITIONAL FINDINGS AND CONCLUSIONS

Upon consideration of the entire record, including the FEIS, and the briefs filed, it is found and concluded, in addition to the findings and conclusions heretofore set forth, that:

(1) The Power Authority of the State of New York (PASNY) is a public benefit corporation, created by a legislative act in 1931 and governed by five trustees with overlapping terms who are appointed by the Governor with the advice and consent of the State Senate.

(2) As a public benefit corporation, PASNY operates without state credit and without tax monies.

(3) PASNY operates three hydroelectric projects which are licensed by the Federal Power Commission and a transmission system, comprised mostly of 230 kv and 345 kv transmission lines and facilities, which is connected to those of other electric utility systems operating in the states of New York and Vermont and in Canada.

(4) PASNY is completing the construction of a nuclear-electric generating station and is studying several sites for thermal electric plants to be located near the Leeds substation.

(5) When the Federal Power Commission, pursuant to an application filed by PASNY in August 1968 issued a license for the Blenheim-Gilboa Project No. 2685 on June 6, 1969, it approved as part of the project works three primary lines subject to the filing of plans for its approval of their design and location.

(6) Pursuant to such required filings for the three primary lines, PASNY submitted its proposed plans for approval and the Commission, on April 10, 1970, approved the location of and a 150-foot wide right-of-way for the Gilboa-New Scotland and Gilboa-Fraser 345 kv overhead primary single-circuit transmission lines but reserved decision as to the design and location of the Gilboa-Leeds primary transmission line.

(7) PASNY has completed the construction of the Gilboa-New Scotland and the Gilboa-Fraser primary transmission lines and it has substantially completed the other project works.

(8) PASNY examined many possible corridors with regard to the location of the Gilboa-Leeds transmission line including several suggested by others and then studied in more detail those that are identified as Routes A and B.

(9) Based on its studies, PASNY concluded that it preferred Route A but that it would accept Route B as a transmission line corridor for a Gilboa-Leeds primary line. On

December 4, 1970, PASNY supplied to the Commission its selection of the rights-of-way for each of these two routes.

(10) Protests and objections were filed with the Commission to Routes A and B proposed by PASNY and other routes were suggested, by local citizens and other parties, which have the designations of Routes C, D and E. All five of such routes are shown in an environmental report of PASNY dated March 26, 1971 (Ex. 33).

(11) Pursuant to protests, and to petitions for intervention received by the Commission, the petitions for intervention were granted and the Commission determined that a public hearing would be held on the location and design of a Gilboa-Leeds primary transmission line.

(12) Following a prehearing conference on June 22, 1971, the public hearing on the Gilboa-Leeds primary transmission line began on November 9, 1971, and was concluded on September 19, 1973, after a suspension of hearing for a Federal court review, preparation and submission by Staff of a Draft Environmental Statement for comment by parties of record, and by Federal, state and local agencies, submission of a Staff Final Environmental Statement which was entered in the record as evidence (Ex. 71) and on which Staff was examined, and after receipt of more evidence from PASNY and Intervenors.

(13) In connection with its 32 mile Gilboa-New Scotland alternating current 345 kv single circuit primary transmission line supported by non-convertible lattice type steel towers, PASNY acquired a 400-foot wide right-of-way of which a 150-foot wide strip is licensed as part of the Blenheim-Gilboa Project.

(14) In connection with its major 28.5 mile portion of the Gilboa-Fraser alternating current 345 kv single circuit primary transmission line supported by non-convertible lattice type steel towers, PASNY acquired a 400-foot wide right-of-way of which a 150-foot wide strip is licensed as part of the Blenheim-Gilboa Project.

(15) Initially, PASNY also proposed to acquire a 400-foot right-of-way between Gilboa and Leeds for a 345 kv single circuit line as part of the Blenheim-Gilboa Project and for a higher voltage line to be built on the same right-of-way in

the future, but PASNY has now abandoned the intention of acquiring at this time a right-of-way for the higher voltage line. Applicant now seeks a 150-foot right-of-way for the Leeds line unless the Commission requires the line to be built for two 345 kv circuits or for such circuits convertible to 765 kv, in which case Applicant would need a 250-foot wide right-of-way.

(16) Prior to the initiation of the public hearing, PASNY made field investigations and studied not only Routes A, B, C, D and E but also a route via New Scotland, designated as Route F for purposes of reference, and to some degree a Southern Tier route, designated as Route G for purposes of reference, as well as Routes Z₁ and Z₂ for alternative alternating current single circuit 345 kv overhead transmission line with two different lengths of a double circuit 345 kv underground segment, Route X for an alternative alternating current 345 kv double circuit fully underground Gilboa-Leeds transmission line, and Route Y for an alternative alternating current 345 kv double circuit partially overhead but almost fully underground Gilboa-Leeds transmission line.

(17) During the course of the public hearing, PASNY made some modifications in the direction of two of the routes so as to make Routes A and B environmentally less objectionable and they eventually became PASNY Routes A-1 and B-1.

(18) During the course of the public hearing PASNY prepared plans, profiles, designs and estimates of capital costs for an alternating current overhead 345 kv single circuit transmission line supported by lattice type towers as well as by steel pole H-frame towers convertible to double-circuit 345 kv use and to single circuit 765 kv use, along its Route A-1 and its Route B-1.

(19) During the hearing period, PASNY also presented evidence on the Petroleum Products Pipeline right-of-way as an alternative corridor.

(20) The Staff made independent, interdisciplinary field inspections, studies and investigations of the planning, ecological, cultural, scenic, engineering and economic aspects of a Gilboa-Leeds transmission line along Routes A, B, C, D

and E, F (via New Scotland), G (via Rock Tavern) and H (via Petroleum Products Pipeline) for an alternating current overhead transmission line.

(21) Based on field inspections, Staff suggested four major modifications in Route A in the interest of reducing the impact on ecological, cultural, scenic, and other environmental values and the result is Staff's Route A-1 which differs from PASNY's Route A-1.

(22) The Staff made studies of overhead and of underground direct current transmission lines.

(23) The Staff studied the reliability role of a Gilboa-Leeds transmission line.

(24) The Staff studied the reliability, operating, economic and environmental aspects of generating capacity alternatives to a Gilboa-Leeds transmission line.

(25) A 345 kv transmission voltage level had been established by the Federal Power Commission and by the electric utilities for New York and New England by the year 1964 and the formulation of a 345 kv transmission network was nearly completed.

(26) By the time that the 345 kv transmission lines were studied by PASNY as a planning and operating member of the New York Power Pool, a 345 kv pattern of transmission lines was established and the proposed primary lines of the Blenheim-Gilboa Project were examined and tested as to their suitability as components of the 345 kv transmission pattern.

(27) Initially PASNY planned only the Gilboa-Leeds and Gilboa-Fraser 345 kv overhead transmission lines as primary lines of the Blenheim-Gilboa Project but studies by a committee of the New York Power Pool showed the need for a Gilboa-New Scotland primary line based on established criteria.

(28) A 765 kv transmission network had been established by the Federal Power Commission and by the electric utilities for the New York and New England part of the Northeast Region by the year 1970 in the form of a general looped pattern, and

some local refinements between major substation locations have been and are being made to meet the local needs of the electric systems.

(29) On May 4, 1971, information was supplied that PASNY was undertaking a study of a potential Breakabeen development and Staff in its initial studies of a Gilboa-Leeds transmission line took into account such a project as it may be related thereto and evidence thereon was presented in Staff's direct case.

(30) In its studies of a proposed Gilboa-Leeds transmission line Staff considered it in relation to an integrated long-range plan including the 345 kv and 765 kv alternating current overhead networks for the Northeast Region.

(31) By the year 1970, the Federal Power Commission as well as the electric utilities had prepared long-range plans for the provision of new sources of power supply comprised of a mix of peaking, intermediate and base load generating capacity.

(32) Annually, such long-range plans covering 10-year periods are refined and updated by the electric utilities and are supplied to the Commission.

(33) On March 30, 1973, PASNY filed an application for a 1,000 megawatt pumped storage site at Breakabeen and the primary transmission lines proposed therewith were already considered by the Staff in its Draft Environmental Statement dated January 1973.

(34) Initially, PASNY prepared ten detailed designs for an alternating current 345 kv single circuit transmission line having a total of six 954,000 circular mil (954 MCM) aluminum cable steel reinforced (ACSR) electrical conductor with two such 954 MCM ACSR conductors for each of the three phases supported by four types of towers capable of supporting only one circuit, two types of towers convertible to support two 345 kv transmission circuits and four types of towers initially constructed to support a double circuit 345 kv transmission line but supporting one such circuit.

(35) During the course of the hearing PASNY prepared four designs for an alternating current transmission line having a total of six 1351.5 MCM ACSR electric conductors with two such 1351.5 MCM ACSR conductors for each of the three phases supported by two types of towers capable of supporting only one 345 kv overhead circuit and by two types of towers capable of supporting two 345 kv circuits, as well as a design for a twelve conductor 765 kv single circuit transmission line.

(36) The Staff of the Commission initially prepared designs for an alternating current 345 kv single circuit transmission line having a total of six 954 MCM ACSR electric conductors with two such conductors for each of the three phases supported by two types of towers, each capable of supporting only one circuit and by two types of towers convertible for holding up two 345 kv single circuit 345 transmission lines as well as a single circuit 765 kv transmission line.

(37) Of the various types of supporting structures, PASNY prefers steel lattice towers with conductors arranged in a horizontal line for holding up a 345 kv single circuit transmission line and for bearing up initially a 345 kv double circuit and later a single circuit 765 kv transmission line.

(38) PASNY also prefers steel lattice towers of the low profile type for a double circuit 345 kv transmission line with conductors arranged in two horizontal lines, with two phases of each circuit being on the lower line.

(39) Staff prefers steel lattice type towers in wooded areas and steel pole H - frame towers in open areas with phases arranged in a horizontal line.

(40) PASNY prepared estimates of capital costs of alternating current overhead transmission lines assumed to be located along Routes A, A-1, B and B-1.

(41) Staff prepared estimates of capital costs of alternating current overhead transmission lines assumed to be located along Routes A, Modified A, A-1, B, Modified B, B-1, C, D, E, F (via New Scotland), G (via Fraser-Rock Tavern) and H (via Petroleum Products Pipeline) based on price levels as of April 1, 1971, except where otherwise noted.

(42) For an alternating current 345 kv single circuit transmission line assumed to be located along 33 mile Route A and to have 954 MCM ACSR electrical conductors supported by towers capable of holding up only one such circuit, the four estimates of capital costs for a Gilboa-Leeds line prepared by PASNY vary from \$7,696,000 for steel lattice towers to \$10,083,000 for steel pole H-frame towers.

(43) For an alternating current 345 kv single circuit Gilboa-Leeds transmission line assumed to be located along 33 mile Route A and to have 954 MCM ACSR conductors supported by towers capable of holding up only one such circuit, Staff estimated a capital cost of \$5,800,000 for steel lattice towers and \$7,000,000 for a combination of steel lattice towers and steel pole H-frame towers.

(44) For an alternating current 345 kv single circuit Gilboa-Leeds transmission line assumed to be located along Route A and assumed to have 954 MCM ACSR conductors supported by double circuit steel lattice towers of the low profile type the estimated capital cost of PASNY is \$8,879,000.

(45) For an alternating current 345 kv single circuit Gilboa-Leeds transmission line assumed to be located along 33 mile Route A and to have 954 MCM conductors supported by a combination of steel lattice and steel pole H-frame convertible for use for two 345 kv circuits or for a 765 kv single circuit transmission line has been estimated by Staff to have a capital cost of \$8,800,000.

(46) For an alternating current 345 kv single circuit Gilboa-Leeds transmission line assumed to be located along its 34.9 mile Route A-1 and to have 1351.5 MCM ACSR conductors supported by single circuit non-convertible 345 kv towers PASNY estimated the capital cost to be \$9,241,000 for a steel lattice tower design and \$11,581,000 for a steel pole H-frame tower design.

(47) For an alternating current 345 kv single circuit Gilboa-Leeds transmission line assumed to be located along its 34.9 mile Route A-1 and to have 1351.5 MCM ACSR conductors supported by towers convertible to double circuit 345 kv use and to single circuit 765 kv use PASNY estimated the capital

cost to be \$14,901,000 for a steel lattice tower design and \$16,632,000 for a steel pole H-frame tower design.

(48) For an alternating current 345 kv single circuit Gilboa-Leeds transmission line assumed to be located along 36.6 mile Route B and to have 954 MCM ACSR electrical conductors supported by towers capable of holding up only one circuit, the four PASHY estimates of capital costs vary from \$8,213,000 for steel lattice towers to \$10,843,000 for steel pole H-frame towers.

(49) Capital costs for an alternating current 345 kv single circuit Gilboa-Leeds transmission line assumed to be located along 36.6 mile Route B and to have 954 MCM ACSR conductors supported by towers capable of holding up only one circuit have been estimated by Staff at \$7,800,000 for a combination of steel lattice towers in wooded areas and steel pole H-frame towers in open areas and at \$6,230,000 using only steel lattice towers.

(50) For an alternating current 345 kv single circuit Gilboa-Leeds transmission line assumed to be located along 36.6 mile Route B and to have 954 MCM ACSR electrical conductors supported by double circuit steel lattice towers of the low profile type PASNY has estimated the capital cost of \$9,515,000.

(51) An alternating current 345 kv single circuit Gilboa-Leeds transmission line assumed to be located along 36.6 Route B and to have 954 MCM ACSR conductors supported by a combination of steel lattice and steel pole H-frame towers convertible to use for two 345 kv circuits or for a 765 kv single circuit transmission line has been estimated by Staff to have a capital cost of \$9,900,000.

(52) For an alternating current 345 kv single circuit Gilboa-Leeds transmission line assumed to be located along 37 mile Route B-1 and to have 1351.5 MCM ACSR conductors supported by single circuit non-convertible 345 kv towers PASHY estimated the capital cost at \$8,955,000 for a steel lattice tower design and \$11,514,000 for a steel pole H-frame tower design.

(53) For an alternating current 345 kv single circuit Gilboa-Leeds transmission line assumed to be located along 37 mile Route B-1 and to have 1351.5 MCM ACSR conductors supported by towers convertible to double circuit 345 kv use and to single circuit 765 kv use PASNY estimated the capital cost to be \$15,525,000 for a steel lattice tower design and \$17,195,000 for a steel pole H-frame tower design.

(54) For an alternating current 345 kv overhead single circuit transmission line assumed to have 954 MCM ACSR electrical conductors held up by non-convertible single circuit 345 kv steel lattice towers with flat spacing Staff estimated a capital cost of \$6,450,000 for 42.3 mile Route C, \$6,280,000 for 35.7 mile Route D, \$6,330,000 for 36.7 mile Route E, \$11,000,000 for 60 mile Route F (via New Scotland) and \$35,000,000 for 194 mile Route G (via Fraser and Rock Tavern).

(55) For an alternating current 345 kv overhead single circuit transmission line having 954 MCM ACSR electrical conductors supported by non-convertible single circuit steel lattice towers in wooded areas and by steel pole H-frame towers in open areas, both with flat spacing, Staff estimated a capital cost of \$8,100,000 for Route C, \$7,800,000 for Route D, \$7,920,000 for Route D, \$7,920,000 for Route E and \$13,500,000 for Route F (via New Scotland).

(56) For an alternating current 345 kv overhead single circuit Gilboa-Leeds transmission line having 954 MCM ACSR electrical conductors supported by non-convertible single circuit steel lattice towers in wooded areas and by steel pole H-frame towers in open areas, both convertible to double circuit 345 kv use or to single circuit 765 kv use, Staff estimated a capital cost of \$10,300,000 for Route C, \$9,900,000 for Route D, \$11,100,000 for Route E and \$17,000,000 for Route F (via New Scotland).

(57) For alternating current 345 kv overhead single circuit Gilboa-Leeds transmission line having 954 MCM ACSR electrical conductors supported by steel lattice towers in wooded areas and steel pole H-frame towers in open areas, both convertible to double circuit 345 kv use or single circuit 765 kv use only between Gilboa and Fraser, Staff estimated a capital cost of \$43,000,000 for the 194 mile Route G (via Fraser and Rock Tavern).

(58) Based on later cost levels used by PASNY, for an alternating current 60-mile 345 kv overhead single circuit Gilboa-Leeds transmission line located along Route F (via New Scotland) having 1351.5 MCM ACSR conductor, Staff estimated a capital cost of \$14,000,000 assuming the use of non-convertible single circuit steel lattice towers, \$23,700,000 assuming the use of lattice steel towers convertible to double circuits 345 kv use or to a single circuit use, and \$30,000,000 assuming the installation of two 345 kv circuits on towers convertible to single circuit 765 kv use.

(59) For an alternating current 345 kv overhead single circuit Gilboa-Leeds transmission line assumed to be located along Route H (via Petroleum Products Pipeline) and having 954 MCM ACSR electrical conductors supported by steel lattice towers in wooded areas and steel pole H-frame towers in open areas, both convertible to double circuit 345 kv use or to single circuit 765 kv use, Staff estimated capital costs varying from \$15,000,000 to \$18,000,000 assuming the use of 7.3 miles to 22 miles of the Petroleum Products Pipeline right-of-way.

(60) For an alternating current 765 kv overhead single circuit Gilboa-Leeds transmission line via the 194 mile Route G (via Fraser and Rock Tavern) having 135.5 MCM ACSR electrical conductors supported by steel lattice towers, Staff estimated a capital cost of \$70,000,000.

(61) For an alternating current 345 kv Gilboa-Leeds single circuit overhead transmission line having 954 MCM ACSR electrical conductors supported by non-convertible single circuit 345 kv steel lattice towers with a double circuit 345 kv underground segment having 2,500,000 circular mil (2,500 MCM) copper conductors, the capital cost has been estimated by PASNY at \$41,700,000 for the 37.2 mile Route Z₁, and at \$38,200,000 for the 3619 mile Route Z₂.

(62) For an alternating current 40.1 mile 345 kv Gilboa-Leeds double circuit underground transmission line to be located along Route X and having 2,500 MCM copper conductors, the capital cost has been estimated by PASNY at \$92,097,000 for such line plus associated facilities.

(63) For an alternating current 345 kv Gilboa-Leeds double circuit underground transmission line, with a short section of single circuit 345 kv overhead line, having a total length of 37.9 miles and assumed to be located along Route Y and having 2,500 MCM copper conductors, the capital cost has been estimated by PASNY at \$84,047,000 for such combination of lines plus associated facilities.

(64) For an alternating current 345 kv Gilboa-Leeds double circuit underground transmission line located along a 40 mile Staff route and having 2,500 MCM copper conductors, the capital cost has been estimated by Staff at \$95,300,000.

(65) For a direct current overhead 400 kv Gilboa-Leeds single circuit two conductor (two pole) transmission line along 36.5 mile Staff's Route A-1 or along 37 mile Route B-1, Staff has estimated a capital cost of \$64,700,000 for such a line plus associated costly terminal equipment.

(66) For a direct current underground 400 kv Gilboa-Leeds double circuit two conductor per circuit transmission line having 2,500 MCM copper conductors assumed to be located along Staff's 40 mile route, Staff estimated the total capital cost to be \$104,000,000 comprised of \$44,000,000 for the transmission line plus \$60,000,000 for the terminal equipment.

(67) For a gas turbine generating capacity alternative to an alternating current 345 kv overhead Gilboa-Leeds single circuit transmission line, Staff estimated a capital cost of \$113 per kilowatt (\$28,250,000) and an equivalent capital cost of \$207 per kilowatt (\$51,750,000).

(68) For a peaking steam-electric generating capacity alternative to an alternating current 345 kv overhead Gilboa-Leeds single circuit transmission line, Staff estimated a capital cost of \$148 per kilowatt (\$37,000,000) and an equivalent capital cost of \$230 per kilowatt (\$57,500,000).

(69) For a baseload fossil fueled steam-electric generating capacity alternative to an alternating current 345 kv overhead Gilboa-Leeds single circuit transmission line, Staff estimated a capital cost of \$227 per kilowatt (\$56,750,000) which is also the equivalent capital cost.

(70) For a baseload nuclear-fueled steam-electric generating capacity alternative to an alternating current 345 kv overhead Gilboa-Leeds single circuit transmission line, Staff estimated the capital cost to be \$293 per kilowatt (\$73,250,000) and the equivalent capital cost to be \$262 per kilowatt (\$65,500,000).

(71) For a purchased generating reserve alternative to an alternating current 345 kv overhead Gilboa-Leeds single circuit transmission line, Staff estimated both the capital cost and the equivalent capital cost to be \$207 per kilowatt (\$51,750,000).

(72) Under the present state of undergrounding progress and technology, undergrounding and partial undergrounding of a transmission line from Gilboa Switchyard to Leeds substation is too costly in relation to the benefits to be derived therefrom based on the record in the proceeding.

(73) Generating capacity alternatives to an alternating current 345 kv overhead Gilboa-Leeds single circuit transmission line are too costly in relation to the benefits attributable to not constructing such a line based on the record in the proceeding.

(74) An overhead direct current 400 kv single circuit transmission line as an alternative to an alternating current 345 kv overhead single circuit transmission line is too costly in relation to the benefits to be derived therefrom based on the record in this proceeding.

(75) Overhead direct current and underground direct current and alternating current transmission lines are not reasonable, justifiable and viable alternatives to an alternating current overhead Gilboa-Leeds single circuit transmission line.

(76) Generating capacity sources of power supply are not reasonable, justifiable and viable alternatives to an alternating current overhead Gilboa-Leeds single circuit transmission line.

(77) An alternating current 345 kv 194 mile overhead Gilboa-Leeds single circuit transmission line along Route G

(via Fraser and Rock Tavern) would require PASNY to obtain about 130 miles of new right-of-way location in the service areas of three electric utility systems raising many new environmental problems.

(78) Construction of an alternating current 345 kv 194 mile overhead Gilboa-Leeds single circuit transmission line along Route G (via Fraser and Rock Tavern) would not constitute a prudent use of material and financial resources and it would not be available for service within a reasonable time.

(79) Construction of an alternating current 345 kv 194 mile overhead Gilboa-Leeds single circuit transmission line along Route G (via Fraser and Rock Tavern) would have a substantial adverse effect on the economic feasibility of the Blenheim-Gilboa Project.

(80) Construction of an alternating current 345 kv 194 mile overhead Gilboa-Leeds single circuit along Route G (via Fraser and Rock Tavern) would not contribute sufficiently to the reliability potential of the Blenheim-Gilboa Project and its primary lines.

(81) An alternating current 345 kv 194 mile overhead Gilboa-Leeds single circuit transmission line along Route G (via Fraser and Rock Tavern) would not be compatible with nor a suitable component of the New York 345 kv network.

(82) The 194 mile overhead Route G (via Fraser and Rock Tavern) is not suitable for a 765 kv overhead single circuit transmission line because of excessive exposure, unbalancing of 765 kv network loading, and reduced reliability and high cost.

(83) Construction of an alternating current 345 kv 194 mile overhead Gilboa-Leeds single circuit transmission line along Route G (via Fraser and Rock Tavern) would not eliminate the necessity for a 765 kv transmission line from Fraser via Gilboa to Leeds.

(84) An alternating current 345 kv 194 mile overhead Gilboa-Leeds single circuit transmission line along Route G (via Fraser and Rock Tavern) would be incompatible with an integrated comprehensive long-range plan with regard to its 345 kv and 765 kv networks.

(85) An alternating current 345 kv 194 mile overhead Gilboa-Leeds single circuit transmission line along Route G (via Fraser and Rock Tavern) would not be a viable alternative to a similar 36.5 mile transmission line along Route A-1.

(86) An alternating current 345 kv 60 mile overhead Gilboa-Leeds single circuit transmission line along Route F (via New Scotland) would not be a compatible, convertible component to long range 765 kv transmission plans for the Northeast Region as it would not meet the loop requirements of the 765 kv transmission network and would substantially and adversely affect the southeast New York electric systems.

(87) Construction of an alternating current 345 kv 60-mile overhead Gilboa-Leeds single circuit transmission line along Route F (via New Scotland) would not eliminate the necessity for a 765 kv transmission line from Fraser via Gilboa to Leeds.

(88) Construction of an alternating current 345 kv 60-mile overhead Gilboa-Leeds single circuit transmission line along Route F (via New Scotland) would place an economic burden on the Blenheim-Gilboa Project.

(89) The New Scotland to Leeds portion of an alternating current 345 kv 60 mile overhead Gilboa-Leeds single circuit transmission line along Route F (via New Scotland) would add to the engineering and environmental problems.

(90) An alternating current 345 kv 60 mile overhead Gilboa-Leeds single circuit transmission line along Route F (via New Scotland) would not be compatible with nor reasonably adaptable to an integrated comprehensive long-range plan with regard to its 345 kv and 765 kv networks.

(91) The location of an alternating current 345 kv 60 mile overhead Gilboa-Leeds single circuit transmission line along Route F (via New Scotland) would limit the contribution by the Blenheim-Gilboa Project plant and its primary transmission lines to system reliability.

(92) An alternating current 345 kv 36.7 mile overhead Gilboa-Leeds single circuit transmission line along Route E would in comparison with Route B, as modified, be more difficult to construct, somewhat more costly to operate and maintain, and have a greater ecological impact.

(93) The time-availability of an alternating current 345 kv 36.7 mile overhead Gilboa-Leeds single circuit transmission line along Route E would be significantly reduced because of the difficulty of conducting preventative maintenance and making repairs especially during the winter season when the electric loads are at or near a maximum magnitude.

(94) The contribution to system reliability of an alternating current 345 kv overhead 36.7 mile Gilboa-Leeds single circuit transmission line along Route E would be less than needed and sufficiently limited to affect adversely the 345 kv transmission networks.

(95) The importance of a 765 kv overhead transmission line link from Gilboa to Leeds is so great that Route E is not acceptable for overhead use at 765 kv on the grounds of uncertain reliability.

(96) An alternating current 345 kv 36.7 mile overhead Gilboa-Leeds single circuit transmission line along Route E would not be a viable alternative to a similar 36.5 mile transmission line along Route A-1.

(97) An alternating current 345 kv 42.3 mile overhead Gilboa-Leeds single circuit transmission line along Route C would have a relatively high environmental impact, be difficult to operate and maintain, and the annual operating cost would be relatively high.

(98) The location of an alternating current 345 kv overhead 42.3 mile Gilboa-Leeds single circuit transmission line along Route C near wildlife-resource resting and feeding areas would make it subject to more numerous outages than are normally accepted.

(99) The greater exposure to open areas of an alternating current overhead 42.3 mile Gilboa-Leeds single circuit transmission line along Route C increases its scenic impact and, with more difficult access thereto, would reduce significantly its dependability.

(100) The contribution to system reliability by the Blenheim-Gilboa Project would be reduced significantly by locating an alternating current overhead Gilboa-Leeds single circuit transmission line along the 42.3 mile Route C.

(101) The importance of a 765 kv overhead transmission line link from Gilboa to Leeds is so great that Route C is not acceptable for 765 kv overhead use on the ground of uncertain reliability.

(102) An alternating current overhead Gilboa-Leeds single circuit transmission line along Route H (Petroleum Products Pipeline Right-of-way-PPPRwy), having alternative potential lengths of 41, 43.3 and 46 miles, would have all of the non-environmental inadequacies, limitations and adverse aspects of Route C and in addition would have a continuous problem of maintenance along the underground pipeline.

(103) The reliability of the power output of the Blenheim-Gilboa powerplant as well as the contribution of the Project to system reliability would be reduced substantially if an alternating current 345 kv overhead single circuit transmission line is located along Route H (PPPRwy).

(104) The importance of a 765 kv overhead transmission line link from Gilboa to Leeds is so great that Route H is not acceptable for 765 kv overhead use on the ground of uncertain reliability.

(105) There are presently 345 kv overhead transmission line crossings of the Hudson River downstream from Albany

on a line from New Scotland to Schodack, at Leeds, and at Buchanan; and, the first two are available for 765 kv overhead transmission line crossings.

(106) An alternating current 123 mile single circuit overhead Gilboa-Fraser-Rock Tavern-Ramapo-Indian Point (Route G-1) transmission line would require a new or an additional crossing of the Hudson River.

(107) An alternating current 123 mile overhead single circuit 345 kv transmission line along Route G-1 would not be available for service for so long a time that it would adversely affect the economic feasibility of the Blenheim-Gilboa Project.

(108) An alternating current 123 mile overhead single circuit 345 kv transmission line along Route G-1 would be unreasonably costly.

(109) Route G-1 would not be acceptable for a 765 kv overhead single circuit transmission due to lack of sufficient reliability and absence of a 765 kv overhead crossing of the Hudson River.

(110) An alternating current 123 mile overhead single circuit 345 kv overhead transmission line would not be a compatible component of an integrated comprehensive long-range plan if located along Route G-1.

(111) An alternating current 123 mile 345 kv overhead single circuit transmission line along Route G-1 would not be a viable alternative to a similar line along Route B-1.

(112) An alternating current 35.7 mile overhead 345 kv Gilboa-Leeds single circuit transmission line located along Route D would be somewhat costly to construct, difficult to maintain and relatively costly to operate.

(113) An alternating current 35.7 mile overhead 345 kv Gilboa-Leeds single circuit transmission line along Route D would be located through some areas where it would have significantly adverse environmental impacts, and be vulnerable to damage by aircraft and by persons using Catskill Creek.

(114) An alternating current 35.7 mile 345 kv overhead Gilboa-Leeds single circuit along Route D would seemingly just about satisfy the reliability requirements of a 345 kv single circuit transmission line but not of a double circuit 345 kv overhead transmission line.

(115) An alternating current 35.7 mile 345 kv overhead Gilboa-Leeds single circuit transmission along Route D would not be suitable nor acceptable for conversion to 765 kv overhead use as it would not have sufficiently dependable availability and reliability.

(116) An alternating current 35.7 mile 345 kv overhead Gilboa-Leeds single circuit transmission line located along Route D would not be a viable alternative to a similar 345 kv transmission line along Route B-1 except possibly if it is used only for a single circuit 345 kv overhead alternating current transmission line.

(117) Routes A and A-1 are satisfactory on the basis of environmental, construction, operation and maintenance, and economic standpoints, but environmentally inferior to Route B-1 as modified by PASNY, for an alternating current 345 kv overhead Gilboa-Leeds single circuit transmission line.

(118) An alternating current 345 kv overhead Gilboa-Leeds single circuit transmission line along Route B-1 would be preferable to all other alternate routes for conversion to double circuit 345 kv overhead use and to single circuit 765 kv overhead use on the basis of environmental and non-environmental grounds and it would be an important component of the 345 kv and 765 kv transmission networks.

(119) On the basis of non-environmental standards and criteria Route A is the best one for an alternating current 345 kv overhead Gilboa-Leeds single circuit transmission both for 345 kv use, double circuit 345 kv use, and single circuit 765 kv use and Route B is almost as good.

(120) Routes A and B have been modified in the interest of ecological and scenic value considerations by PASNY and have become PASNY Route A-1 and Route B-1. Staff's modification were chiefly with respect to Route A, taking into

account the recreation potential of the area, and its modifications became Staff Route A-1.

(121) In any evaluation of transmission line routes with regard to their impact on the environment, a major consideration is the ascertainment of those that are adaptable to optimum use on the basis of integrated comprehensive long-range plans particularly as related to the 765 kv overhead transmission network.

(122) The only transmission line routes which are acceptable for ultimate 765 kv overhead transmission line use are Route A-1 and Route B-1.

(123) There is information on the environmental impact of full undergrounding and partial undergrounding of alternating current transmission lines and also some on direct current overhead and underground transmission lines.

(124) An alternating current 345 kv overhead single circuit transmission line proposed by Intervenor from Gilboa to Fraser to Coopers Corners to Rock Tavern to Pleasant Valley via Danskammer would require a new overhead crossing of the Hudson River with a serious adverse impact on the scenic values of the area.

(125) An alternating current 345 kv overhead Gilboa-Leeds single circuit transmission line along Route G (via Fraser and Rock Tavern) would have to be supported by wood pole H-frame structure for about 130 miles of its 194 mile length so as to match the construction of the existing 345 kv overhead single circuit transmission in the interest of minimizing the scenic impact of structures but at the expense of imprudent land use.

(126) An alternating current 345 kv overhead Gilboa-Leeds single circuit transmission line along Route G (via Fraser and Rock Tavern) would have a very substantial adverse impact on the environment, including scenic values when viewed from the Catskill Forest Reserve.

(127) An alternating current overhead transmission line along Routes A-1 or B-1 generally would cross sparsely

settled rural land and would not significantly affect any historical sites.

(128) None of the lands that would be occupied by an alternating current overhead transmission line along Routes A-1 or B-1 have a historical site thereon. The lands are reported as least suitable for urban development so far as tank effluent fields are concerned.

(129) An alternating current overhead transmission line along Routes A-1 or B-1 would not cross state lands except for a narrow strip on the Schoharie-Greene County boundary and would avoid all developed recreational areas.

(130) Except for a few parcels primarily between Highways 32 and 29, an alternating current overhead transmission line along Routes A-1 or B-1 would traverse lands of the type least suitable for development of homes and industry with basements.

(131) It is feasible to construct an alternating current overhead transmission along Route B-1, as recommended, to the end that the adverse environmental effects thereof would be kept to a minimum.

(132) The order authorizing construction of an alternating current overhead Gilboa-Leeds transmission line should have provisions regulating construction, maintenance of the line and recreational use of the right-of-way.

(133) An authorization for the construction of an alternating current overhead Gilboa-Leeds transmission line also should have a provision requiring the initial installation of towers designed and constructed for 765 kv use capable of supporting one 345 kv circuit or two 345 kv circuits or one 765 kv circuit at such time as each or any may be needed.

(134) Except at corners (angle towers) an authorization for the construction of an alternating current Gilboa-Leeds transmission line also would have a condition requiring a corridor 250 feet wide, of which a 25-foot strip on each edge would be left in its present condition except for danger trees.

(135) An authorization for the construction of an alternating current overhead Gilboa-Leeds transmission line also would provide for the use of 765 kv lattice steel towers and of steel pole H-frame towers in such locations in the manner specified in the order herein.

(136) An alternating current overhead Gilboa-Leeds transmission line would have some adverse impact on the area's fish and wildlife resources as well as a beneficial impact on those species of animals which prefer edge-type habitat.

(137) The cleared parcels along the right-of-way of an alternating current overhead Gilboa-Leeds transmission line would be subject to the invasion of objectional weed growth and of grass cover but there would also be an opportunity with proper care to supply an increase in grazing and browse plant material benefiting some game animal species.

(138) The cleared and cut sections along the right-of-way of an alternating current overhead Gilboa-Leeds transmission line would affect adversely some squirrels and birds using existing cover for dens and natural nesting.

(139) The non-reflective conductors and specially surfaced towers near wetlands and marshes would have some adverse effects on birds including migratory fowl principally where takeoffs and landings are frequent.

(140) Aquatic habitat would be adversely affected to some degree even after rigid construction practices are observed because of some soil erosion and stream siltation.

(141) Water quality would be lowered to some degree during the initial construction phase of an alternating current overhead Gilboa-Leeds transmission line.

(142) In spite of strict controls during construction of an alternating current overhead Gilboa-Leeds transmission line there are expected to be some spills of fuels and some small fraction of growth retardants which may be washed into the stream and they would further impair water quality.

(143) Pesticides and herbicides would not be used in the preparation or maintenance of the right-of-way of an alternating current overhead Gilboa-Leeds transmission line.

(144) With selective clearing under strict controls, careful selection of routing of construction and access roads, and with very early planting of cover in cleared pieces of land of an alternating current overhead Gilboa-Leeds transmission line, minor landslides, erosion in the soils and glacial deposits would be minimized.

(145) Removal of danger trees and smaller growth essential to be removed, and pruning of growth in the course of clearing, feathering, and maintaining the right-of-way and access roads would enhance the safety, reliability, operation and maintenance, and reduce substantially the environmental impact of an overhead line.

(146) An alternating current overhead Gilboa-Leeds transmission line along Route B-1 would have an adverse impact on recreational and aesthetic values which would be mitigated or compensated for to various degrees by utilizing opportunities for various recreational pursuits, such as nature study, establishment of wildlife management areas, hunting and bird watching.

(147) During construction of an alternating current overhead Gilboa-Leeds transmission line along Route B-1 there would be a disturbance to some degree of the existing scenic traffic tours.

(148) Restrictions on land use and development in areas adjacent to an alternating current overhead Gilboa-Leeds transmission line would have some adverse impact on the local economy at those places where developments are reasonably practical.

(149) Construction phases of an alternating current overhead Gilboa-Leeds transmission line along Route B-1 could and probably would disrupt, and could reduce somewhat, the tourist travel and trade.

(150) Routing of an alternating current overhead Gilboa-Leeds transmission line along Route B-1 would require

acquisition by PASNY of several homes and business structures, and relocation of the affected persons.

(151) Construction, operation and maintenance of an alternating current overhead Gilboa-Leeds transmission line along Route B-1 would have some impact on public health and safety, common to such lines, which could be reduced with proper shielding, grounding, clearance of conductors above ground, and use of approved anti-climbing devices.

(152) The use of motorized equipment for constructing an alternating current overhead Gilboa-Leeds transmission line would result in a temporary increase in air and noise pollution and cause minor soil compaction.

(153) The adverse environmental effects of varying degrees which cannot be avoided because of the construction, operation and maintenance of an alternating current overhead Gilboa-Leeds transmission line include some diminution in the quality of the landscape; some disturbances to and changes in land and land cover along the right-of-way; some residual fish and wildlife damage attributable to land compaction erosion and siltation of streams, thermal change in the water, damage to aquatic biota and to natural cover; and degradation to some extent of the quality of receiving waters.

(154) The mitigation or replacement measures to adjust and compensate for some of the adverse effects as are attributable to the construction, operation and maintenance of an alternating current overhead Gilboa-Leeds transmission line via Route B-1 include replacement or movement to a new location of property, and grounding of electrical structures and choice of proper sized conductors to reduce ozone production during a storm to a minimum and to eliminate noise associated with the breakdown of air around conductors.

(155) The mitigation or replacement measures for such a Gilboa-Leeds overhead transmission line also include special attention to selective planting or cutting of trees and growth, planting of desirable species of shrubs and grasses, selective use of growth retardants, reduction in loss of plant and other life through judicious selection of tower sites,

maximum use of public roads with minimum use of mechanized equipment along access and construction roads, mulching to reduce encroachment of noxious weeds, early seeding and planting of exposed ground, careful gathering and disposal of cuttings and spoil, and planting of agricultural products along selectively cleared areas.

(156) The Presiding Administrative Law Judge's rulings remanded by order of October 25, 1973, have been reconsidered in the light of the record and should be and are hereby reaffirmed. All additional relief requested directly of the Commission and referred to the Administrative Law Judge by the order of October 25, 1973, should be and is hereby denied.

(157) It is in the public interest that Licensee be authorized to construct a transmission line along PASNY Route B-1 (see Appendix A). A general description of the route is as follows:

A transmission line about 36.6 miles long along PASNY Route B-1 would occupy lands in the towns of Gilboa and Conesville of Schoharie County, Rensselaerville of Albany County and Durham, Greenville, Cairo and Athens of Greene County (Ex. 55-C).

Route B-1 begins at the Gilboa Switchyard in Gilboa Township and extends in a southerly direction for about 0.3 mile. From this point it proceeds generally on a bearing about 15 degrees south of east for 9 miles (Ex. 55-C). It first passes between Bear Mountain and Reed Hill and continues along its course in substantially a straight line, crossing Valenti, Kingsley, Mabie, Flat Creek, Back and McGuire Roads and Platter Kill and two of its tributaries. It enters the Town of Conesville soon after crossing McGuire Road. In the Town of Conesville it crosses Davis, Wood, and Brand Roads, County Roads 59 and 18 and East Conesville Road and Bear and Manor Kills and three tributaries thereof, to reach a point about 0.4 mile west of Schoharie County Route 3 to the point designated as Common Point "A" (7/1226-27; Ex. 55-C, Ex. 71 - pp. 197, 201).

From Common Point "A" Route B-1 takes a northeasterly course toward the southwest corner of Albany County to a point

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in Albany County about 1100 feet north of the southwest corner of Albany County, a distance of 2.5 miles. In this reach, the route crosses the unpaved Red House Road connecting to Route 3 from the north. Route B-1 parallels County Highway 3 (in Schoharie County) which becomes County Highway 354 in Albany County, at a distance varying from about 900 to 1600 feet. Most of this reach is through lightly wooded area, with some cleared land at each end. Through parts of this section a line would be visible from the village of Durham and the Susquehanna Turnpike (7/1233-34; Ex. 55-C).

Route B-1 continues in a slightly more easterly direction for a distance of another 2.5 miles to a point in Albany County, about 1000 feet south of State Highway 81, about 1500 feet east of State Highway 145 and about 500 feet north of the Albany-Greene County line. In this section Route B-1 crosses County Highway 354, Engle Road, State Highway 145 and Catskill Creek. This section is largely cleared but there are some interspersed parcels that are wooded (7/1234; Ex. 55-C).

Next, Route B-1 turns slightly northward and runs about 0.4 mile to a point south of State Highway 81 and about 300 feet north of the Albany County line where it turns about 14 degrees northward and runs for a length of about 0.6 mile to a point about 400 feet west of State Highway 81 and about 800 feet north of the Albany County line, then turns slightly northward again and extends about 2500 feet to a point east of State Highway 81 and about 1600 feet north of the Albany County line, then runs parallel to the Albany County line for about 0.65 mile to Fish Road where it turns slightly northward and extends about 0.5 mile to a point about 0.4 mile north of the Albany County line and 1000 feet west of Niles Road. This section of the route right-of-way crosses Catskill Creek, State Highway 81 and Fish Road. The deviation northward by-passes some nearby buildings and other developments. This section is somewhat cleared at the western and at the eastern ends with scattered wood cover in between (7/1234; 15/2092-2098; Ex. 55-C).

Route B-1 then turns southward and runs for a distance of about 2.2 miles but in a direction about 15 degrees south of east to a point in Greene County about 1600 feet south of the Albany County line and about 800 feet east of

Saybrook Valley Road. It crosses Niles, Siebert and Gifford Roads in Albany County and Saybrook Hill Road, Tenmile Creek and Saybrook Valley Road in Greene County. This section of the route is mostly wooded with clearings in the western, central and eastern parts (7/1234-35; 15/2092-2098; Ex. 55-C).

Route B-1 now turns about 33 degrees to the south and extends about 1.4 miles almost to McCafferty Road to a point about 1000 feet northwest of the intersection of McCafferty Road and State Highway 81. At this point Route B-1 swings slightly eastwardly and runs for about 0.95 mile to a point about 800 feet west of the Durham-Greenville town line and about 0.3 mile south but slightly east of the intersection of Old Plank and Gibson town roads. In this reach, the route crosses MacKay, McCafferty and Old Plank Roads. Except for the western end, most of this section is cleared and the route avoids two groups of buildings on State Highway 81 (7/1235; Exs. 55-C, Ex. 71-p. 201).

The route continues, upon turning 36 degrees north toward east, for a distance of about 600 feet west of County Highway 35 and about 2600 feet northeast of the junction of Red Mill Road and County Highway 35. In this stretch, the route crosses Carter Bridge and Big Woods Roads. This section is mostly wooded but there are a few cleared patches (7/1235; Ex. 55-C).

Route B-1 next turns more to the south and runs southeasterly about 1.5 miles to a point about 4000 feet east of State Highway 32, 1300 feet south of County Highway 41 and about 3800 feet southeast of the intersection of State Highway 32 and County Highway 41. In this reach the route crosses Basic Creek and County Highways 32, 41, and 35. This reach is fairly well developed in the Greenville area, and is mostly wooded with cleared portions near the western and central parts (7/1235-36; Ex. 55-C).

Route B-1 now turns more southerly on a bearing almost due southeast and runs about 0.7 mile to a point about 600 feet south of the northern part of Fox Hill Road and about 1800 feet west of the intersection of Fox Hill Road and County Highway 41 (cf. 15/2102). The route next takes a turn slightly eastward and runs about 2.0 miles to a point 800

feet east of Vly Road and 1400 feet northeast of the intersection of Vly and Drake Hill Roads (cf. 15/2104-2107). In this section, the route crosses Fox Hill Road, State Highway 41, Waldron and Vly Roads, and Jan De Bakers Kill. This section is mostly wooded in the western part and partially cleared in the eastern part (7/1236; Ex. 55-C).

Route B-1 next turns more southward and runs about 1.3 miles to a point about 2100 feet west of the Greenville-Coxsackie town line and about 0.45 mile southeast of the intersection of the Gayhead-Earlton Road and King Hill Road. In this section the route crosses Drake Hill Road and Gayhead-Earlton Road, and its right-of-way would parallel and abut Kings Hill Road. This section is mostly cleared and the route passes near some buildings in the vicinity of the junction of Vly and Drake Hill Roads (7/1236; Ex. 55-C).

The next section of Route B-1 is about 2.5 miles long. It connects to the point about 0.45 mile southeast of the intersection of Gayhead-Earlton and King Hill Roads, and runs in a more southerly direction in its southeastern course to Common Point "B" in the town of Cairo about 800 feet north-east of the intersection of Ira Vail Road and Novack Road, and about 600 feet east of Ira Vail Road. The route crosses the State Scenic Schoharie Turnpike in a fairly open area, and Deyo Road. This section is generally wooded in the northern and southern parts and mostly cleared in the middle section (7/1236-37; Ex. 55-C, 71-pp. 66-69).

At this point Route B-1 now turns a bit southward and continues southeastward for about 0.6 mile to a point about 1000 feet west of Rudolph Weir Road and about 0.4 mile southwest on the intersection of Harold C. Meyer Road and Rudolph Weir Road. In this part, Route B-1 crosses two small, unnamed tributaries of Catskill Creek and Indian Ridge Road. Most of this part of the route is wooded (7/1229-30; Ex. 55-C, Ex. 71-pp. 197, 201).

Route B-1 next turns slightly southward and runs about 1.4 miles to a point about 0.4 mile west of Potic Mountain Road and about 0.6 mile northwest of the junction of High Hill and Center Roads. In this section, the route crosses Rudolph Weir Road and Potic Creek (7/1230; Ex. 71-pp. 197, 201).

At this point between Potic Creek and Potic Mountain Road, Route B-1 turns slightly to the east and runs south-eastward about 1.7 miles to a point near Green Lake Road where it turns slightly to the south for 0.6 mile about 500 feet east of its crossing of Green Lake Road and about 0.5 mile south of the junction of Green Lake Road and the Schoharie Turnpike. In this reach, Route B-1 crosses Potic Mountain Road, High Hill Road, an unpaved road, the New York Thruway, Green Lake Road, and a dead end road. This is mostly through wooded land (7/1230; 15/2086-2088; Ex. 55-C, Ex. 71-pp. 197, 201).

At the point 0.2 mile east of the dead end road 49A (originally part of the Green Lake Road) Route B-1 turns to the south and extends southeastward about 1.2 miles, including 0.2 mile to Vosen Kill, another 0.1 mile to Vosen Kill Road and 0.5 mile to a point 0.2 mile west of U.S. Highway 9W. In this reach, which parallels Route 28, the route crosses Vosen Kill and Vosen Kill Road. Most of this part of the route is wooded except for an open area east of the New York Thruway (7/1230-31; Ex. 55-C; Ex. 71-pp. 197, 201).

About 0.2 mile before crossing 9W, Route B-1 takes a north-south direction by turning a sharp angle to the south. This section runs about 1.3 miles and is located near the upper part of a ridge between Vosen Kill Road and U.S. Highway 9W. This section is wooded and has a meadow west of the ridge. Some of the towers would be visible from the New York Thruway (7/1231; Ex. 71-p.201). After running for 1.3 miles the route turns southeastward for about 0.5 mile crossing to the east side of 9W (Ex. 55-C).

The final segment takes an easterly direction and runs about 0.4 mile to the Leeds substation from a point about 0.4 mile west of the Penn-Central Railroad tracks and about 0.5 mile northeast of the intersection of U.S. 9W and County Route 74, crossing the Penn-Central Railroad tracks, a side road and some cleared land on its run to its terminal at Leeds. These two final alignments east of 9W would parallel three existing overhead lines on the southward leg, and two lines into the switchyard at Leeds.

ORDER

WHEREFORE, IT IS ORDERED, subject to review as provided by the Commission on appeal, or upon its own motion, as provided in the Commission's Rules of Practice and Procedure that:

(A) Licensee (PASNY) is authorized to construct a 345 kv overhead transmission line from Gilboa to Leeds, in accordance with applicable Commission regulations, along designated Route B-1 as heretofore described. The 1,351.5 MCM ACSR non-reflective conductors shall be supported by steel lattice and steelpole H-frame russet surface non-reflective towers suitable for conversion at a later time to support double circuit 345 kv lines or a 765 kv single circuit line.

(B) The Presiding Administrative Law Judge's rulings remanded by order of October 25, 1973, having been considered in the light of the entire record, are hereby reaffirmed. All additional relief requested directly of the Commission and referred to Administrative Law Judge by the order of October 25, 1973, is also denied.

(C) The line shall be built, operated and maintained in compliance with (1) the terms of the license for Project 2685, giving appropriate consideration to Commission guidelines as issued November 27, 1970, in Order No. 414, Docket No. R-365, and (2) the following special conditions which are hereby incorporated as part of the license for Project No. 2685.

Article 40. Licensee, in the detailed design and in the planning, construction, and maintenance of the overhead transmission line from Gilboa to Leeds, shall:

(A) retain a board of independent environmental consultants including a safety engineer, a forester, a landscape architect and a transmission line construction engineer, one of whom shall be recommended by the State of New York,

(1) To advise the Licensee as to measures including placement of steel pole H-frame towers at crossings of scenic and other roads as may be needed to protect and develop the

environmental values and natural resources of the transmission line right-of-way, and its affected contiguous areas, including but not limited to construction specifications, access roads, stream crossings, selective clearing and "feathering" of rights-of-way, excavations, disposal of spoils, use of plant growth retardants, screen and other selective plantings, use of heavy equipment, location and selection of color and design of tower structures and methods of stringing conductors, prevention of soil erosion and slides, construction methods, protection of archaeological and other cultural values, and drainage works such as culverts and bridges. The board shall continue to operate for a period of up to three years following completion of construction of the line, monitoring environmental impacts of the line and making recommendations for such reasonable measures needed to mitigate those impacts,

(2) To submit to the Licensee bimonthly reports prior to construction and monthly reports during construction of the transmission line, and annual reports thereafter during the period the board is retained,

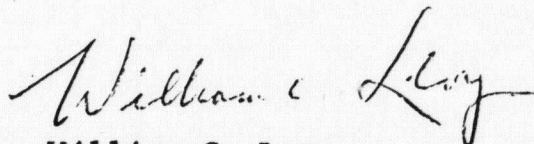
(B) furnish to the Commission detailed information within 30 days of the initiation of construction on proposed location of towers of each type, height of each tower, copies of construction contracts, copies of contracts relating to environmental matters, and such additional information as may be required by this Commission concerning the primary transmission line authorized for construction herein; and Licensee shall promptly submit to the Commission such actual changes and adjustments as may be made upon the recommendation of the environmental consultant board as provided for in Article 40. Additionally, Licensee shall promptly submit to the Commission copies of the reports of the board of consultants referred to above.

Article 41. The overhead transmission line from Gilboa to Leeds shall be constructed on a right-of-way 250 feet wide, provided that no less than a 25-foot width on either of the outer sides shall be utilized to a reasonable extent for "feathering" through timbered areas, selective plantings for wildlife habitat and screening proposed through cleared areas or near roads, for the purpose of improving the wildlife uses, and lessening the scenic impact of the transmission line.

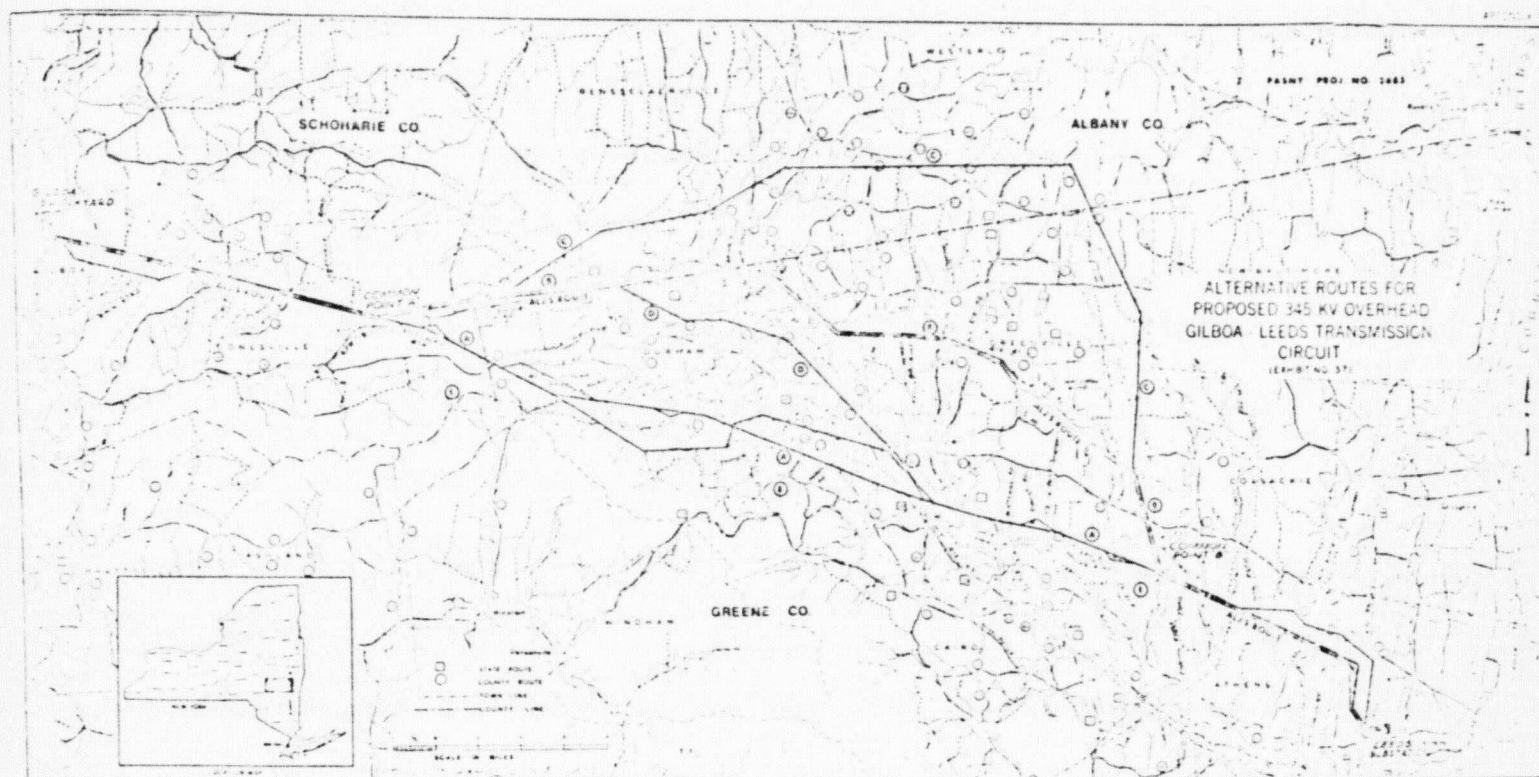
Article 42. Licensee for the purpose of protecting and developing the environmental values and natural resources of the right-of-way and its contiguous lands shall incorporate into contracts for construction of the overhead transmission line from Gilboa to Leeds such specifications that will provide contractors with rules and conditions to be observed in locating spoils, protecting cultural values and any archaeological sites discovered during excavations, and otherwise provide appropriate guidance and lines of communication for the above purposes.

Article 43. Licensee, on those right-of-way lands obtained in fee, shall consult and cooperate with the New York Office of Parks and Recreation in determining the need for and, if appropriate, in incorporating those lands or parts thereof in the Project Exhibit R for public outdoor recreational uses.

Article 44. The Licensee shall file prior to start of construction revised or additional Exhibits J, K and M for Commission approval so that those exhibits approved as part of the license properly reflect the transmission line and its routing approved herein.



William C. Levy
Presiding Administrative Law Judge



UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

LICENSE (Primary Line); NATIONAL ENVIRONMENTAL POLICY ACT;
PRIMARY TRANSMISSION LINE; ENVIRONMENTAL PROTECTION
(Transmission Line); PRACTICE AND PROCEDURE (Hearing); FEES

Before Commissioners: Richard L. Dunham, Chairman;
Don S. Smith, John H. Holloman III,
and James G. Watt.

Power Authority of the State)
of New York)

Project No. 2685

OPINION NO. 751

OPINION AND ORDER AFFIRMING AND ADOPTING
INITIAL DECISION AUTHORIZING CONSTRUCTION
OF PROPOSED GILBOA-LEEDS TRANSMISSION LINE

(Issued January 29, 1976)

DUNHAM, Chairman:

This proceeding concerns a request by the Power Authority of the State of New York (PASNY) under Section 4(e) of the Federal Power Act 1/ for Commission approval of a primary transmission line from the Blenheim-Gilboa Pumped Storage Project in Schoharie County, New York, to the Town of Leeds in Greene County, New York (see attached map). Local opposition to the proposal developed and an appeal was taken to the United States Court of Appeals for the Second Circuit on procedural matters arising under the Natural Environmental Policy Act of 1969 (NEPA) 2/ resulting in the decision in Greene County Planning Board v. FPC, 455 F.2d 412 (2nd Cir.), cert. denied 409 U.S. 849 (1972) (Greene County I). After hearing and the exchange of briefs, Presiding Administrative Law Judge William C. Levy issued his initial decision on July 1, 1974, authorizing the construction of the Gilboa-Leeds line. We herein affirm and adopt that initial decision as the decision of the Commission.

1/ 41 Stat. 1065-1066 (1920), 49 Stat. 840-841 (1935),
61 Stat. 501 (1947); 16 U.S.C. § 797(e) (1970).
2/ 83 Stat. 852 (1970); 42 U.S.C. § 4321, et seq. (1970).

BACKGROUND

On June 6, 1969, the Commission granted a license to PASNY, a public benefit corporation created by the laws of the State of New York, to construct and operate the Blenheim-Gilboa Project including, as part of the project works, three primary 345 Kv transmission lines. ^{3/} While the license issued by that decision generally authorized construction of the project, Article 34 thereof specifically prohibited construction of the transmission lines until further Commission approval was given.

On November 24, 1969, PASNY applied for construction authorization under Article 34, filing exhibits showing the proposed designs and locations of the three transmission lines, one of which was to run from the project switchyard in the Town of Gilboa, Schoharie County, New York, approximately 37 miles to the Leeds substation in the Town of Athens, Greene County, New York (the "Gilboa-Leeds line"). Opposition to the Gilboa-Leeds line developed in Greene County and in January and February 1970, shortly after NEPA went into effect, petitions to intervene were filed by the Town of Durham, the Association for the Preservation of Durham Valley, Brooks Atkinson, Marshall Bell, Barry H. Garfinkel, Alfred Gelhorn, Arthur Goldschmidt, Walton McClure, Earl Morse and Agnes O'Neil (collectively, Durham), the Greene County Planning Board and the Town of Greenville in Greene County (collectively, Greene County), Joe Segelman, and the Sierra Club. On April 10, 1970, the Commission approved the application and exhibits insofar as they related to the Gilboa-Fraser and Gilboa-New Scotland transmission lines as to which no protests or petitions were filed, but it reserved consideration of the Gilboa-Leeds transmission line. ^{4/} On May 19, 1970, the Commission granted all of the pending petitions to intervene; and subsequently it granted petitions to intervene which were filed at later times by the Town of Westerlo in adjacent Albany County, the Cornwallville Conservation Corporation, and Congressman Hamilton Fish, Jr., and the Citizens to Preserve the Hudson Valley.

After meeting with various persons interested in the affected area, and following additional studies, PASNY filed with the Commission on December 4, 1970, two alternative proposals for routing the Gilboa-Leeds transmission line. On March 26, 1971, PASNY filed with the Commission and transmitted to the intervenors its Environmental Report, showing,

^{3/} 41 F.P.C. 712 (1969).

^{4/} 43 F.P.C. 521 (1970).

among other matters, three possible variations of the two alternative proposals. Various prehearing motions and appeals resulted in the decision in Greene County I on January 17, 1972, holding among other matters, that the Commission's initial regulations under NEPA requiring PASNY to submit an Environmental Report did not comply with the mandate of NEPA requiring the Commission staff to prepare a detailed environmental impact statement before the administrative law judge would issue his initial decision.

Following Greene County I, the Commission revised its "Statement of General Policy to Implement Procedures for Compliance With the National Environmental Policy Act of 1969" 5/ in the manner which had been suggested by the Second Circuit and, pursuant to such revised regulations (18 CFR § 2.81), the Commission staff prepared and circulated a draft environmental impact statement (DEIS), which the Staff later revised to a final environmental impact statement (FEIS) and offered in evidence. During the course of the hearing the intervenors challenged both such statements, and the Commission, by order issued June 15, 1973 6/ deferred its decision to consider the objections which had been raised. On September 9, 1973, the record of almost 4,000 pages of transcript and numerous exhibits was closed, and by orders issued September 27, 1973, 7/ and, October 25, 1973 8/, the Commission indicated that it would consider the objections in conjunction with the anticipated exceptions to the Presiding Administrative Law Judge's initial decision. In the meanwhile, however, the intervenors moved for a stay of the proceeding which was denied by the United States Court of Appeals for the Second Circuit in Greene County II. 9/

In his initial decision of July 1, 1974, including 157 numbered additional findings and conclusions, Judge Levy authorized PASNY to construct a 345 kv overhead transmission line from Gilboa to Leeds along a route designated as B-1, but including at either end segments of Route A-1. On August 1, 1974 Durham filed a brief on exceptions accepting the Initial Decision sub silentio insofar as it authorizes construction of the line along Route B-1, and excepting to certain of the numbered additional findings and conclusions relating to Route A-1 and to Judge Levy's failure to award certain fees and expenses. The Sierra Club and Joe Segelman, together with Greene County, joined in Durham's brief. Greene County

5/ Implementation of the National Environmental Policy Act of 1969, 48 F.P.C. 1442 (1972), reh. denied, 49 F.P.C. 359 (1973), amended, 49 F.P.C. 12801 (1973); 18 C.F.R. §§ 2.80-2.82, Appendix A (1975).

6/ 49 F.P.C. 1378 (1973).

7/ 50 F.P.C. 833 (1973).

8/ 50 F.P.C. 1243 (1973).

9/ Greene County Planning Board v. FPC, 490 F.2d 256 (2nd Cir. 1973).

additionally on August 12, 1974, filed a lengthy brief on exceptions taking the following general positions: (1) the conduct of the hearing contained so many errors as to preclude the compilation of a full and fair record, and the Initial Decision continues the judge's prejudicial conduct of the case; (2) the Initial Decision and the record upon which it is based improperly and narrowly define the applicable project scope and thereby make it impossible for the Commission to assess the need for the transmission line, to perform its comprehensive planning function, to comply with NEPA or adequately to consider alternatives; (3) the record does not support Route B or any other route. 10/ The Commission staff, on September 16, 1974, and PASNY, on September 18, 1974, filed briefs opposing exceptions supporting the Initial Decision.

We may note first that the construction and operation of a transmission line will have a certain impact on the environment during the relatively short period of its construction and a different impact thereon following construction and during the relatively long term operating life of the line. While the impact during construction, no matter how significant from an environmental point of view, will be minimal over time, the impact following construction and during the operating life of the line will be significant over time whether or not it is significant from an environmental point of view. With these distinctions in mind, and recognizing that NEPA is concerned with both the short and long term adverse effects of our actions, we call particular attention to Judge Levy's finding that "The major adverse environmental impact is visual and aesthetic." 11/ No participant had filed an exception to that finding. Indeed, as noted by Judge Levy, Durham witness Dr. David Lowenthal, an eminent geographer and historian, testified (Tr. 3067) that "the locating of transmission lines is not one of the major ecological disturbers."

Secondly, Section 105 of NEPA 12/ provides: "The policies and goals set forth in this Act are supplementary to those set forth in existing authorizations of Federal agencies." We issued the license herein pursuant to the authorization conferred by Section 4(e) of the Federal Power Act and upon an express finding, as mandated by Section 10(a) of the

10/ Durham states, in this connection, that all variations of Route A were properly rejected.

11/ Initial Decision at 16.

12/ 83 Stat. 854 (1970); 42 U.S.C. § 4335 (1970).

Federal Power Act 13/, that "the project will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, and for other beneficial public uses, including recreational purposes." Unless, therefore, the adverse environmental impact of the proposed Gilboa-Leeds transmission line would outweigh the benefits of the comprehensive plan selected under the Federal Power Act, a finding which is not supported by the record of this proceeding, we must consider NEPA not as an obstacle to the construction or operation of the transmission line but as a supplementary directive for minimizing the project's adverse environmental impact consistent with other considerations, such as cost.

INITIAL DECISION

After discussing the background of the proceeding and the positions of the parties, including the intervenors' position that the Gilboa-Leeds transmission line is not needed, Judge Levy concluded that the "line is necessary and should be authorized unless its environmental impact is so substantial as to outweigh the transmission benefits of the proposed line." The 1,000 MW operating capacity of the Blenheim-Gilboa Pumped Storage Project represents more than 4 percent of the installed generating capacity of the State of New York, he found, and approximately 11 percent of the installed generating capacity of Consolidated Edison Company of New York (Con Ed), the principal supplier of electric energy in New York City and nearby Westchester County, and is routed by the New York Power Pool principally to upstate New York during the winter and to New York City during the summer. And while the Blenheim-Gilboa Pumped Storage Project has been completed and can be and is being operated at maximum head with the existing Gilboa-New Scotland line to the northeast and Gilboa-Fraser line to the southwest, the Gilboa-Leeds line to the southeast is needed, according to PASNY, "for the reliability and stability of the project is a necessary component of the project in the expert opinion of every engineer who participated in planning the project or who testified in this proceeding."

Judge Levy considered the pertinent aspects of the New York transmission system and found that there is no efficient and reliable means of moving power from the Blenheim-Gilboa Pumped Storage Project south to the metropolitan New York City area without the Gilboa-Leeds transmission line. Since there are two 345 kv lines from New Scotland (Albany) south to Leeds and three such lines from Leeds south to metropolitan New York City, Blenheim-Gilboa power cannot be moved to that area

13/ 41 Stat. 1068 (1920), 49 Stat. 842 (1935); 16 U.S.C. § 803(a) (1970).

by way of New Scotland when the two circuits from New Scotland to Leeds are operating at full capacity. As a result, he said, a 345 kv transmission line would provide an essential third such circuit to Leeds. And Blenheim-Gilboa power cannot be moved to the New York metropolitan area by way of Fraser when the 345 kv circuit from Fraser, is completed to Ramapo in southern New York and is in full use meeting the requirements of New York State Electric and Gas Corp. and Orange and Rockland Utilities, Inc. Furthermore, he found, loss of the Gilboa-New Scotland line would result in the loss in the availability of at least half of the Blenheim-Gilboa power unless there is a Gilboa-Leeds line which can transmit the power "because, the record shows, such an output limitation will be required to prevent instability of the entire Gilboa Project and to prevent thermal overloads on the New York Power Pool interconnected system."

Judge Levy selected Route B-1, a modification of Route B proposed by PASNY, as the best route which is developed in the record, stating that "the environmental and visual impact is the decisive factor because the differences in costs, engineering, and other quantifiable costs and benefits between the two routes A-1 and B-1 are relatively minor." As already noted, the Judge actually incorporated portions of Route A-1. Thus he would employ Route A-1 from the Gilboa Station to Common Point A, Route B-1 from Common Point A to Common Point B, and Route A-1 from Common Point B to the Leeds substation. In this last segment he uses an alternative A-1 as described in Appendix A and shown on the map, Appendix B.

In order to resolve a conflict principally between PASNY and the Commission staff with respect to utilizing conventional steel lattice towers and the more costly and aesthetic H-frame towers, Judge Levy conditioned his authorization upon a new Article 40 under which a board of independent environmental consultants would advise PASNY, among other matters, upon the utilization of particular design towers at specific locations. He rejected underground lines because the visual benefit is far outweighed by the greater ecological damage during construction, the cost of underground lines which are approximately ten times greater than the cost of overhead lines, lesser reliability under current technology, and greater problems of maintenance and repair.

Among other matters, Judge Levy said that

"Section 10(a) of the Federal Power Act requires in substance that the Leeds line cannot be authorized unless it be 'best adapted to a comprehensive plan' or development; and NEPA requires that, in the formulation of a comprehensive plan, environmental factors be given at least equal consideration with economic, engineering, and other technical factors in the decision making process."

A69

He noted that on March 30, 1973, PASNY filed an application to construct and operate the Breakabeen Pumped Storage Project No. 2729 about six miles from Blenheim-Gilboa, that shortly thereafter PASNY commenced studies for the construction of substantial fossil or nuclear fuel base load generating facilities in the vicinity of Leeds or the adjacent Hudson Valley area, that studies in the record indicate that a 765 kv line will be needed between Gilboa and Leeds and that a 765 kv circuit is capable of transmitting four to six times more power than a 345 kv circuit with a large reduction in the amount of land required for transmission corridors. He then found: "Consequently, it is environmentally desirable that long range planning requirements and contingencies be met by a single circuit 345 kv line on conventional steel lattice towers, except where pole H-frame towers may be required, capable of supporting two 345 kv circuits, capable of later conversion into a single circuit 765 kv line on the same 250 foot right-of-way using the same structures as are now necessary for the single 345 kv Leeds line." 14/

SCOPE OF THE RECORD

In its exceptions to the initial decision Greene County argues that the proposed Gilboa-Leeds line is but a small piece of a long range comprehensive plan for generating and transmission facilities and cannot be considered in isolation. Greene County would greatly enlarge the scope of the project here involved which is composed of the Blenheim-Gilboa pumped storage facility and its three primary transmission lines. Obviously our approval of the Gilboa-Leeds line must be considered in connection with the existing and proposed transmission lines, generating stations and other electric facilities of the interconnected systems to satisfy the criteria of the Federal Power Act and NEPA. However, Greene County contemplates a "project" which includes the 345 kv bulk transmission system in New York State with links to New York City, the extra high voltage system (765 kv) in New York State, the proposed Breakabeen Pumped Storage Project and proposed large thermal generating stations to be built by PASNY in the vicinity of Leeds. Greene County adds that no analysis of the long range cumulative environmental impact of a Gilboa-Leeds line is contained in the Initial Decision, the environmental statements or elsewhere in the record, and that the record cannot support the decision reached.

14/ Initial Decision at pp. 6-7.

As pointed out by PASNY and the Staff the relationships between the Gilboa-Leeds line and adjacent 345 kv lines, built and to be built, are covered by the record and the initial decision. It is shown that Gilboa-Leeds is needed and will fit into the developing regional grid. As noted on the map, Appendix D, Leeds is connected by two lines running north to New Scotland and by two lines running south to Pleasant Valley east of the Hudson and thence to New England and New York City as well as by a line to Roseton and Rock Tavern west of the Hudson, which will be extended to Ramapo, which, in turn, is connected to New York City and New Jersey. It is thus most necessary to promptly connect the Gilboa-Blenheim plant to Leeds so that its instantly available hydro power can be made available to the several load centers, particularly New York City. The record shows that the energy from Blenheim-Gilboa could not reliably be carried to New York City via Fraser or via New Scotland and Leeds, for Niagara-Mohawk's lines from New Scotland to Leeds might be in full use or the interconnection from Fraser to Ramapo might be tied up by the requirements of other companies. Furthermore, any electrical difficulties on these routes could result in the Blenheim-Gilboa generators being out of service without the alternate Gilboa-Leeds route.

Based on the evidence briefly outlined herein and considered at great length by the Judge, we conclude that the proposed Gilboa-Leeds line is necessary as an integral part of the existing and proposed segments of the New York 345 kv grid. Contrary to Greene County, we do not think that in determining whether to approve the Gilboa-Leeds lines we must go further and review precisely what other 345 kv lines may be built and what alternatives still remain to the whole 345 kv network in New York State or the northeast. We see no requirement for this in NEPA or the Power Act. Part of the 345 kv network has been built and other segments will be needed in the future. The evidence here shows that the connections between Leeds and New York City must be strengthened regardless of the Gilboa-Leeds line because power will flow from the north as well as from possible new generating stations in the Leeds area. Our purpose is to approve a primary line for the Gilboa-Blenheim Project so that under Section 10(a) of the Federal Power Act ^{15/} the project will be best adapted to a comprehensive plan for improving or developing a waterway for the benefit of interstate commerce. Even though we do not have jurisdiction under the Federal Power Act over the siting and construction of transmission lines, apart from primary lines, ^{16/} we properly considered the present and proposed 345 kv network. Compare Alice Henry v. FPC.

^{15/} 41 Stat. 1068; 99 Stat. 842; 16 U.S.C. 803(a).

^{16/} Section 3(11), 49 Stat. 838 (1935), 16 U.S.C. 796(11) (1970); Section 4(e), 49 Stat. 840-841 (1935); 61 Stat. 501 (), 16 U.S.C. 797(e)(1970); Section 201, 49 Stat. 848 (1935), 67 Stat. 461 (1953), 16 U.S.C. 824 (1970).

513 F.2d 395, 403-404 (D.C. Cir. 1975). However, it would be impossible for the power grid to develop if all of the segments had to be considered at one time before the precise locations of the generating stations and lines are determined. Therefore we should not wait until some indefinite period in the future when the plans for the grid have become entirely firm. In Municipal Electric Association of Massachusetts v. FPC, 414 F.2d 1206 (D.C. Cir. 1969) we were upheld in granting a license for a project even though there had not been complete overall planning of the power needs and resources of the region involved.

Greene County further claims that the record should have contained a comprehensive and detailed environmental impact analysis of the proposed and planned 765 kv extra high voltage grid system in the northeastern United States as well. It says that a 765 transmission system is a new program which should first be looked at generally before individual 765 kv projects are considered.

The FEIS, (Ex. 71, Appendix C) shows a New York Power Pool Plan for a 765 kv transmission system as of 1991. See map, Appendix E. It includes an existing line from Edic in Central New York State to New Scotland south of Albany and proposed lines extending south to Pleasant Valley near New York City, to Massena in the north and to the western end of the state. Lines would extend to Gilboa from Edic and from Oakdale lying to the west. The Gilboa-Leeds line is proposed at 765 kv, and from Leeds a 765 kv line would extend across the Hudson and south to Pleasant Valley.

Greene County says that on May 3, 1974, it transmitted to Judge Levy a later New York Power Pool plan which involves a different arrangement of lines and provides for no Gilboa to Leeds 765 kv circuit. We must recognize that the 765 kv plan shown in the FEIS may not represent what actually will be built. However, the record indicates that it is likely that a 765 kv line will be needed between Gilboa and Leeds. The Staff witness Jessel explained that the network would require such a line, for no one would build a network and leave it hanging with only one line to Pleasant Valley where most of the service has to go and that Leeds is the only practical point to get across the Hudson with a 765 kv line (Tr. 2687-88).

We do not know the exact date when the Gilboa-Leeds line should be raised to 765 kv. When this should occur will depend on the development of the high voltage network in New York and the northeast region. Under Section 202 of the Act 17/ we are authorized to encourage the interconnection and coordination of facilities, but we have no authority to grant permission for the building of power lines except those that are primary lines in connection with a hydroelectric project. 18/

17/ 49 Stat. 348 (1935). 16 U.S.C. § 824a(a) (1970).

18/ See Footnote supra.

While the record is full on the environmental aspects of the Gilboa-Leeds line and deals with future plans as to the development of 345 kv and 765 kv lines with which the Gilboa-Leeds line will interconnect, these plans are not yet firm. We know from the record that one 345 kv circuit is now required to connect Blenheim to the transmission network, and that the plans are sufficiently definite that provisions should be made for a second 345 kv circuit and conversion to a single 765 kv circuit. We thus have not blinded ourselves to potential developments, but have considered the Gilboa-Leeds line in the light of future plans and possibilities. See Greene County Planning Board, *supra*, 455 F.2d at p. 424. This does not require us to delay a determination on the Gilboa-Leeds line until we can evaluate the whole future northeastern transmission network. Hence we conclude that we should authorize the Gilboa-Leeds line with place for a second 345 kv circuit, so that it can be converted to a single 765 kv circuit because of the strong possibility that this will be necessary in the future.

Greene County in this connection cites Scientists' Institute for Public Information v. A.E.C., 481 F.2d 1079 (D.C. Cir. 1973), where the court held that the A.E.C. should issue an environmental statement about the whole program, which was still in an experimental stage. Here use of 765 kv lines is a known technique and such lines are already installed in New York State, but operating at 345 kv at this time. To require an environmental study of the future 345 kv or 765 kv grids would prevent the building of the Gilboa-Leeds line for years and would delay the reliable utilization of the power generated by the Blenheim-Gilboa project. There is no need for an environmental impact statement to consider alternatives whose effect cannot be reasonably ascertained and whose implementation is deemed remote and speculative. Life of the Land v. Brinegar, 485 F.2d 460 (9th Cir. 1973), *cert. denied* 416 U.S. 961 (1974).

In this connection Named Individual Members of the San Antonio Conservation Society v. Texas Highway Department, 446 F.2d 1013 (5th Cir. 1971) is not in point. There the Court held that the Secretary of Transportation had to consider a whole highway, which was proposed to run through a park, not merely segments. Here a 345 kv line will interconnect the Blenheim-Gilboa project with other portions of the 345 kv network at Leeds. It will be less disturbing to the environment and less expensive to make the line convertible to 765 kv as needed. This is very different from approving two segments of a highway, but not the middle portion, as in the San Antonio case.

Greene County further contends that the Breakabeen Project No. 2729 and proposed new generators near Leeds must be considered. On March 30, 1973, PASNY filed an application to build Breakabeen, a pumped storage project, on Schoharie Creek about six miles north and downstream from the Blenheim-Gilboa Project. One 345 kv transmission line is proposed for

this project to be carried by the towers of the Gilboa-Leeds line. Greene County argues that there is an intimate connection between the two proceedings since the right of way determined in this case may prejudice the results in the Breakabeen case. Now is the time, Greene County says, to determine system alternatives, for a Gilboa-Leeds line may make the Breakabeen project unavoidable.

As discussed above, the record shows that at the present time a single 345 kv circuit is necessary to carry Blenheim-Gilboa power from Gilboa to Leeds. We have no record before us as to whether the Breakabeen project should be licensed. Breakabeen is not a reason for licensing the Gilboa-Leeds line, but could be a reason for building a line which will accommodate a second 345 kv circuit. It is upgradeable to 765 kv, not to serve Breakabeen but the grid. Further, we do not know whether there will be base load plants in the vicinity of Leeds. The Gilboa-Leeds line may be used to carry pumping power from them to Gilboa, but we do not rely on the building of such plants to support licensing the Gilboa-Leeds line. To delay a determination on the Gilboa-Leeds line for several years until a license is issued for Breakabeen would be contrary to the public interest.

Greene County argues also that the record contains no consideration of true alternatives to the Gilboa-Leeds line particularly the alternatives of building additional lines from Gilboa to New Scotland and Leeds, and from Gilboa to Fraser, Cooper's Corners, Rock Tavern, Roseton and Leeds. The record, including the FEIS (Ex. 71) covers these and other alternatives discussed below.

ROUTES BETWEEN GILBOA AND LEEDS

Greene County argues that no Gilboa-Leeds line can be approved in this proceeding, but, if a line is to be approved, the record will not support Route B chosen by the Judge. As the Judge says, PASNY described five transmission corridors (A,B,C,D,E,) as possible routes for an overhead 345 kv transmission line from Gilboa to Leeds (see attached map Appendix C). PASNY also presented testimony and exhibits on a fully underground route (Route X) and a less fully underground route (Route Y). A 15.1 mile underground double circuit segment along Route A-1 in the Town of Durham was designated Z-1 and a 13.0 mile underground double circuit segment along Route A-1 in the Town of Cairo was designated Route Z-2.

The Staff made independent studies of Routes A, B, C, D and E. It also made a study of the route running north to New Scotland and back to Leeds (Route F) and the route south to Fraser, Rock Tavern, and Roseton and back to Leeds (Route G) and a route along a petroleum products pipeline (Route H). Staff also laid out a possible underground route described in the FEIS.

The Judge concluded that Route B, as modified by PASNY (Route B-1), was the superior proposal. He noted that the most scenic aesthetic, historical, and cultural values in the impact area were found in the Durham Valley and along the Susquehanna Turnpike, and that Route B-1 swings north of Route A-1 and avoids the Durham Valley, the Town of Durham and the Turnpike taking advantage of the ridges and shallow valley around Greenville for better concealment and less visual impact. Further, he noted that C is 5-7 miles longer through populated Albany County, D makes numerous crossings over Catskill Creek, and E would have the greatest adverse visual impact skylining the higher Catskill elevations.

Greene County contends that the environmental witnesses testified principally about Route A and only secondarily about Route B and it is impossible to tell whether routes alternative to Route B would be superior. It also says PASNY mentioned an additional alternative in its application and showed a route along a pipeline right of way that was not closely examined by PASNY or the Staff. Greene County itself did not supply any evidence as to which route was most suitable through its direct Witnesses Burgraff (Tr. 3527) and King (Tr. 3582). Its rebuttal Witness Blackburn (Tr. 3709-39, 3894-3978) testified on direct examination briefly as to the disadvantages of Routes A and B, describing photographs taken, and answered a few questions on Route C, but it was made plain that he had made no substantial study of Route C (Tr. 3924, 2938).

PASNY, on the other hand, argues that it would be ridiculous and uneconomic to make detailed studies and expend large sums of money on all possible alternatives when there were two routes and their modifications which showed the best promise. However Routes C, D, and E were studied in sufficient depth to determine that they were not environmentally desirable, practicable or feasible. As for Route H, the pipeline route, the pipeline right-of-way is narrow and goes off to the north in Albany County instead of towards Leeds (Tr. 3805; Ex. 71, p. 90). The pipeline right-of-way was secured over objections of property owners and its widening would require that a number of buildings, some occupied, be torn down or moved. (Tr. 123-25, 131-33, 3807-08). The increased cost for acquiring the additional right-of-way, plus other costs, would increase the estimated capital cost of the transmission line along corridor H significantly; for example, 4.7 to 7.7 million dollars more than the "C" route. (Ex. 71, p. 44). A transmission line constructed on the pipeline corridor would be difficult to screen at road crossings and would cross numerous areas of marsh land and wetland (Ex. 33, p. 8; Ex. 71, p. 222). Construction of a transmission line along the pipeline would require installation of a cathodic protection system to prevent the pipeline from corroding. In view of these considerations and the fact that the petroleum products pipeline route extends in the wrong direction, it was properly rejected here. PASNY felt it

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- impractical to prepare a recreation plan or wildlife report until determination of the route and consultation with Federal and State Agencies as would be required by the Judge's Article 43 and Article 36 in the original license.

Staff points out it travelled Routes A-E several times since 1971, consulted local authorities and kept Greene County's planning goals in mind. It notes further that to preserve the scenery it advocated a design which would permit upgrading the line to avoid the necessity of new rights-of-way in Greene County in the foreseeable future. While in its brief before the Judge, the Staff advocated a variation of Route A, it did not except to the Judge's choice of Route B-1.

The five routes, A-E, with variations of A and B suggested by the Staff and PASNY, are described fully in the record including the FEIS, and are shown on the map Appendix C. Roughly speaking, Route A, as originally presented by PASNY, follows the straightest line from Gilboa to Leeds and is 33.2 miles long. Staff's Route A-1 shows variations near Gilboa, midway in the Durham Valley, and near the Leeds substation. Routes B-E diverge from Route A at a point about eight miles from Gilboa (common point A) and come together again about 27 miles from Gilboa (common point B). Route C lies furthest to the north traversing Albany County. Route B lies four miles to the south, largely in Greene County, and, as modified, is now called B-1. Route D cuts across diagonally from B to A. Route E lies furthest to the south, partly in the Catskill Mountains.

The costs estimated by PASNY and mileage of the five routes are shown below as a basis of comparison. It is assumed that one 345 kv circuit is installed on steel lattice towers capable of supporting two such circuits and convertible to carry one 765 kv single circuit as follows:

Route	Mileage	Cost
A-1 (as modified by PASNY)	34.4	14,961,000
B-1	36.6	15,156,000
C */	41.3	20,931,000
D */	35	19,129,000
E */	35	17,487,000

*/ In its brief PASNY applied the unit costs estimated for Routes A, B, A-1 and B-1 to Routes C, D, and E adjusted to reflect detailed layout on plan and profile drawings including all environmental considerations.

We agree with the Judge that Routes C, D, and E are not as practical, desirable or preferable compared to Routes A or B as modified, on either, environmental, engineering or economic bases. Route C would involve more land; it would pass through bogs and wetlands, disturbing wildlife; it is located close to small communities and near new developments; and it would have a substantial scenic impact in open areas. The nature of the terrain and required screening would increase capital and operating costs. Route D would be near State Highway 81, would cross Catskill Creek ten times, and would have considerable visual exposure. Route E would infringe on resort areas, would cross state conservation land, would be in close proximity to the northern boundary of the Catskill Forest Preserve and would pass through heavily timbered areas. It would be costly to build because of side-slope terrain and lengthy construction roads in wooded areas.

While Route A and variations of it designed to reduce the environmental impact would be most direct and least costly, we agree with the Judge that for environmental reasons it is not as desirable as Route B-1. This is because the Durham Valley, traversed by Route A-1, represents a single area that permits visibility for a considerable distance, while Route B-1 traverses the dissected plateau to the north and is less visible because of the small hills and forest (Tr. 3754-55).

As noted above, the record, including the FEIS, covers additional alternatives without establishing a new transmission corridor from Gilboa to Leeds. For Route F a circuit could be built from Gilboa to New Scotland on a 250 foot right-of-way belonging to PASNY abutting a 150 foot right-of-way now in use. Additional right-of-way would have to be obtained between New Scotland and Leeds. The whole line would be about 60 miles long and, as a single circuit overhead line supported by lattice work towers convertible to double circuit 345 kv use or single circuit 765 kv use, would have a capital cost of \$23,750,000, compared to \$15,156,000 for a similar 35 mile line along Route B-1 to Leeds.

The line from Gilboa to New Scotland would be vulnerable because of contingencies that could take out both lines on the same right-of-way and because of the concentration of transmission which would result at New Scotland. A 765 kv line from New Scotland to Leeds would close the 765 kv transmission loop at the wrong place; it would eliminate the southeastern New York electric systems from the 765 kv loop and would reduce their high voltage supply to one source, thereby adversely affecting the reliability of power supply.

From the environmental viewpoint another circuit along the Gilboa-New Scotland corridor would require the use of the full 400 foot wide right-of-way and the adverse impact on scenic and other environmental values would be increased substantially without corresponding benefit of service reliability.

Route G, the alternative route via Fraser involves further problems and would be even less desirable. This route would be 105 miles long and the capital costs would vary from \$35,000,000 to \$43,000,000 depending on the type of supporting structures. It would also require reinforcing circuits as far as Ramapo substation. A new circuit would require an additional width of right-of-way for most of the distance; already a great deal of opposition has developed in local communities to such construction. Even if environmental, scenic, wildlife, and other natural resources problems were not so difficult and extensive, this alternative would not have sufficient capacity to Leeds to meet system needs. Nor would it avoid the future need of a Gilboa to Leeds 765 kv transmission corridor.

As noted by the Judge, studies were made and testimony was presented on the possibility of full or partial undergrounding of the more direct routes between Gilboa and Leeds. PASNY presented a fully underground Route X and a less fully underground Route Y, and Staff also presented an underground Route. In addition, PASNY presented segmented underground and overhead lines. The record indicates that undergrounding would cost about ten times that of an equivalent overhead line. Further, while undergrounding would eliminate the scenic impact of towers and overhead conductors, undergrounding requires a completely cleared right-of-way and a maintained access road along its entire length. Also excavations of the trench requires large spoil areas and hauling of excavated material.

Direct current alternatives, either overhead or underground, would offer certain advantages, such as a narrower right-of-way, and certain disadvantages, such as an inability to withstand sudden reversals of flow, but the high cost of the terminal equipment would be prohibitive. The record also shows that generating alternatives, gas turbine, steam or nuclear, to produce capacity would be six times or more as expensive as a transmission line.

We conclude with the Judge that an alternating current 345 kv overhead Gilboa-Leeds single circuit transmission line along Route B-1 convertible to double circuit 345 kv overhead use and to single circuit 765 kv overhead use would be preferable to all other alternatives on the basis of environmental and non-environmental grounds; it would be an important component of the 345 kv and 765 kv transmission networks; and the Licensee should

be authorized to construct it. In accordance with the Initial Decision the licensee should retain a board of independent environmental consultants to advise on the placement of steel pole H-frame towers, other construction details, and maintenance of the line, with reports subject to the approval of the Commission.

It appears that the Judge in describing the course of Route B-1 in his Finding 157 intended to use a Staff alternative to Route A which turns slightly to the east and runs north of Route A as it approaches the New York Thruway. This is a proper variation to move the route away from Green Lake. (Ex. 71, p. 57). However, contrary to the Staff, the Judge would adopt PASNY's proposal that the line turn south before it reaches Route 9W because this would be visually less obtrusive and more suitable for a double circuit 345 kv line or a single circuit 765 kv line than if it came down on the east side of 9W before entering the Leeds substation. This is shown on the map, Appendix B hereto and in Appendix A which represents the Judge's Finding 157 revised to make this clear.

THE CONDUCT OF THE HEARING

Greene County takes strong exception to the conduct of the hearing. It charges the Administrative Law Judge with conducting the hearing "unfairly and lawlessly", "ignoring facts", failing to act in a "judicial manner", and making an "unreasonable, unfair and unlawful ruling" and presiding over a "kangaroo court". After reviewing the record we are of the opinion that such characterizations of an Administrative Law Judge, and Judge Levy in particular (who has retired) are not worthy of a practitioner before the Federal Power Commission. We are not attempting to say that every ruling was correct or every statement made by Judge Levy is appropriate, but we are of the opinion that he conducted a hotly contested proceeding with fairness and efficiency. In any case there is nothing to show that his rulings aggrieved Greene County or other intervenors.

Among numerous complaints Greene County cites a statement of Judge Levy indicating that there would be a rebuttal phase of the proceeding (Tr. 1941-42), and nine months later a statement on September 4, 1973, that the Judge would not have a separate form of rebuttal session (Tr. 3382). The Judge said he did not want to argue about what he said in the transcript (Tr. 3384), but he received the testimony of a number of witnesses on the next to the last day of the hearing in Washington on September 18, 1974, and that of Greene County's witness Blackburn on the last day of the hearing, September 19, 1973, when he was cross-examined (Tr. 3890). Clearly Greene County had been given its opportunity regardless of how he designated the closing phase of the hearing.

Further, Greene County cites a request for any Staff engineering reports on the three lines from the Blenheim-Gilboa project. Counsel for Greene County had asked why there had been designated three primary lines for the project, and the witness had answered that the Staff after study would recommend only those lines whose principal function would be for project purposes (Tr. 1785-1786). When Staff counsel said he had not searched for such a report and the Judge ruled that under the circumstances that he had no alternative to denying the request, Greene County called this "one of the most unreasonable, unfair and unlawful rulings in the annals of administrative law". However, as the Judge said, the request was for a document that, so far as he knew, did not exist or was not available (Tr. 3882). Furthermore, the primary status of the lines as part of the project was res judicata (41 F.P.C. 712, 714-715). We find no reason that Greene County is entitled to the Staff's engineering reports. Compare Indiana & Michigan Electric Company, 33 F.P.C. 739 (1965) affirmed Indiana & Michigan Electric Company v. FPC, 365 F.2d 180 (7th Cir. 1966) cert. denied, 385 U.S. 972 (1966).^{19/}

Greene County further objects to the Judge cutting off its cross-examination saying that the Judge was only interested in cross-examination as a data gathering device rather than as a tool to test the probity or competency of the witnesses. The record in this case and the cross-examination by Greene County was lengthy.^{20/} The Judge cut it off where it extended to collateral matters and matters of remote relevancy. Thus he prevented questioning a witness about trench digging in connection with another project. Although the witness was a geologist, there was no geological issue in the present proceeding (Tr. 535-539). He stopped cross-examination of a witness about another witness' testimony on the ratio of cost of underground to overhead transmission where the ratio was known to be high and the exact ratio was not relevant (Tr. 769). He also prevented cross-examination on information that was otherwise available or of which he could take notice. These included such things as whether PASNY had presented a recreation plan for the transmission line area and whether sites considered were in the National Register of Historic Places (Tr. 1853).

^{19/} Under the Freedom of Information Act, 5 U.S.C. §552 (b)(5) there are exempt "inter-agency or intra-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with the agency."

^{20/} The total transcript of hearings covered 3995 pages; cross examination by Counsel for Greene County is found at Tr. 500-505, 527-530, 534-574, 586-587, 643-676, 704-713, 740-827, 865-870, 875-1011, 1136-1137, 1326-1327, 1569-1576, 1622-1788, 1816-1854, 2306-2319, 2537-2541, 2589-2593, 2608-2609, 2652-2760, 2826-2833, 2933-2934, 2944-2945, 2957-3012, 3087-3092, 3095-3127, 3168-3181, 3615-3619, 3810-3816.

Greene County takes issue with the Judge ruling against a question to the Staff witness as to whether on the basis of the FEIS the Staff was recommending a 765 kv line (Tr. 2715). The Judge considered that the FEIS (p. 118) spoke for itself. We agree that this was needless cross-examination. Greene County also objects to the Judge preventing questions directed to Staff environmental witness Hauck as to where PASNY would obtain funds for a wider transmission line right-of-way (Tr. 2372). We think it clear that questions on such a matter to this witness were entirely inappropriate.

To conclude, counsel for the intervenors have attempted to carry out cross-examination on peripheral matters and on matters already covered and from inappropriate witnesses so that the proceedings were extended without warrant. We do not fault the Judge on his rulings; in any case if he were overly strict, no injury was done to the intervenors.

Denial of cross-examination as to matters not material is not prejudicial. N.L.R.B. v. Friedrich, 116 F.2d 888, 889 (5th Cir. 1940). The extent of cross-examination, on collateral matters is peculiarly within the discretion of the trial judge unless there has been a plain abuse. Basic Books v. F.T.C., 276 F.2d 718, 721 (7th Cir. 1960). Even if the Judge makes an error in excluding material from cross-examination the agency's decision will not be reversed unless substantial justice so requires and not where the excluded material was useless to the case. Dolcin Corp. v. F.T.C., 219 F.2d 742 (D.C. Cir. 1954), cert. denied, 348 U.S. 981 (1955).

Greene County further argues that the Judge's prejudicial conduct also disrupted the presentation of direct testimony. Its complaint goes to the presentation as a witness by Greene County of Frank Burgraff, Chief of Transmission Facilities Certification and Planning Office of the Office of Environmental Planning of the New York State Public Service Commission (Tr. 3527). The F.P.C. staff arranged for Mr. Burgraff to appear, and he was subpoenaed. Greene County objects to the Judge's ruling that he could not be qualified as an expert witness and to the Judge's refusal to let him testify with respect to New York's comments included in the FEIS (Tr. 3561). Earlier the Judge had determined that a state employee should not be called as an expert witness for Greene County when the apparent purpose of the examination would be to require a collateral attack on New York's Comments and Conclusions (Tr. 2162).

The witness testified in response to questioning by Greene County's counsel on the standards and methodology of New York with respect to environmental matters in certifying transmission lines, although its jurisdiction does not extend to

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the lines of PASNY (Tr. 3539-43). When, however, counsel for Greene County asked him whether the comparative environmental impact of an alternative to the Gilboa-Frazier-Rock Tavern-Ramapo route had been evaluated, the Judge sustained the objection (Tr. 3562).

In our opinion the Judge was correct in limiting the testimony of witness Burgraff. As he pointed out, New York was not a party, but had filed comments included in the FEIS (Ex. 71). A New York State employee required to appear should not be forced to testify on New York's comments. Furthermore, the FEIS was prepared by the F.P.C. staff, and staff witnesses had been cross-examined at length on this document.

Finally, Greene County contends that the Judge made a major error in receiving the Staff's FEIS (Ex. 71) into evidence. It argues that Exhibit 71 is a collection of unsworn to, undocumented opinions and conclusions and no reasonable man would rely on it. Greene County I required that the FEIS, in accordance with Section 102(2)(c) of NEPA, must accompany the proposal through the existing agency review processes, which the Court interpreted to include the hearing. Therefore, we believe, in accordance with Section 2.81(b) of our Regulations that the FEIS should be placed in evidence. It was compiled by Staff members including a fishery biologist, a geologist, an electrical engineer, a wildlife biologist, a landscape architect and a forester, and these individuals were subject to cross-examination and were cross-examined. Thus, there is substantial evidence in the record which supports the FEIS. The record clearly indicates the efforts of counsel for Greene County to protract these proceedings. The Judge noted a memorandum dated April 25, 1972, that was prepared by Greene County's counsel and presented to the County in which computations were made of savings to the County from opposition to the Gilboa-Leeds line both on the basis of savings to date and on the basis of savings if the "fight" continues but is lost.

The Judge also notes a refusal on the part of Intervenor to accept adverse rulings on evidence or procedure, and the continuation of argument after such rulings had been made. 21/ In addition, he notes that Intervenor counsel delayed the progress of the hearing by ignoring directions to file their testimony and failing to appear at a conference to discuss procedures. After postponements, which were understandable in view of the Court litigation, 22/ the Intervenor was to file their testimony on January 18, 1972 (Tr. 1882). They

21/ See for example Tr. 535-539, 3120-21, 3557-3575.
22/ The Second Circuit Opinion in Greene County II was issued January 17, 1972.

did not do so, nor did they attend a prehearing conference called by the Judge on January 28, 1972, but filed a letter prepared by counsel for Greene County objecting to filing of their testimony until after the filing of the Staff's impact statement (Tr. 1866), which is dated May, 1973. Although by notice of May 10, 1973 the Judge extended the time for filing their evidence until May 21, 1973, Greene County did not file its evidence at that time, nor had it filed its evidence by the time of the hearing sessions in Albany in early September, 1973 (Tr. 3391). On September 6, 1973, Greene County presented witnesses Burgraff (Tr. 3527) and King (Tr. 3582), New York State employees, and examined them orally. Greene County did not serve testimony until September 17, 1973 (Tr. 3705) just before the termination of the hearing on September 19, 1973.

FEES AND EXPENSES

Durham, with the concurrence of Greene County, the Sierra Club, and Joe Segelman, excepts to the Judge's denial of their motion that PASNY or, in the alternative, the Commission pay reasonable attorneys' fees and expenses of expert witnesses. In support of its request Durham argues that its participation in the proceedings established a landmark ruling in Greene County I and assisted the Judge by the presentation of highly qualified expert witnesses. In doing so it claims that many hundreds of hours of attorneys' time had been directed to this matter and many thousands of dollars of expenses and fees have been incurred.

Greene County cites Greene County I as recognizing that the Commission could entertain an application for fees and expenses at the close of the proceedings although at that posture of the proceedings it would not order the Commission or PASNY to pay the fees and expenses.

The Court in Greene County I could see no Congressional mandate for requiring the payment of fees and expenses in Section 309 or 314(c) of the Federal Power Act or in Section 102(1) of NEPA cited by Greene County, but would not make a final determination of that point in view of the procedural disposition. Durham cites Wilderness Society v. Morton, 495 F.2d 1026 (D.C. Cir. 1974) where the court held that environmental groups challenging the Trans-Alaska Pipeline could recover costs and reasonable attorneys' fees. However, it would not assess attorneys' fees against the United States or the State of Alaska. The case was reversed in Aleyska Pipeline Serv. v. Wilderness Soc., U.S. ___, 44 L. Ed 141, 95 Sup. Ct. 1612 (1975) where the Court held that the Courts had no roving authority to allow counsel fees as costs.

Upon considering this matter further we do not find that Intervenor here have made a case for an award of expenses and fees even if we had the authority to make such an award. The Intervenor represent local towns and land owners who could conceivably have been damaged by the Gilboa-Leeds line. They had every right to present their cases as have countless other intervenors in cases before the Commission, who intervene for the benefit of local areas either because they do not desire the building of a hydroelectric project or pipeline or because they want it and the energy supplies made available. These intervenors are protecting their own interests, and we see no reason to grant them fees and expenses. If they were generally allowed, a large financial burden would be imposed on this Commission and the taxpayer or upon the utility involved and inevitably on its ratepayers. In the absence of a mandate in the statute we are loath to attempt such an expensive departure from past practice.

EXCEPTIONS TO THE JUDGE'S NUMBERED FINDINGS

Durham contended that certain of the Judge's numbered findings (32, 117, 127, 128) relating to Route A or A-1 between Gilboa and Leeds are erroneous. We need not rule on the accuracy or completeness of these findings since the Judge chose Route B-1, and we agree with his choice. It would appear that Durham is correct that Findings 85 and 96 erroneously refer to Route A-1 and should refer to Route B-1.

Greene County lists fifteen findings (2, 4, 5, 8, 10, 15, 16, 19, 22, 23, 30, 32, 33, 105, 129) which it alleges are incomplete and misleading and would add additional material in each case. In our opinion the additions are either redundant, misleading, irrelevant, or immaterial when viewed in the context of the record, the Judge's decision and this opinion. Greene County also proposes 12 additional findings. These, in our opinion, are immaterial, unnecessary or draw incorrect conclusions. Greene County lists further findings that it says are not supported by credible evidence or by substantial evidence, are contrary to the evidence, are irrelevant, cannot be made because the record does not contain a consideration of all relevant factors necessary to support them, or are erroneous as a matter of law. In our opinion Greene County arrives at its conclusions because it disagrees with the Judge's granting approval of a Gilboa-Leeds line. The findings of the Judge as supplemented by those in the opinion are sufficient, we believe, to support the conclusion.

LICENSE ARTICLES

Greene County would add to and modify the License Articles contained in the Judge's ordering clauses. In most cases we believe these changes are unjustifiable or the same effect is achieved by other means. In Article 40(A) Greene County would require that one member of the board of independent environmental consultants be approved by the Department of Environmental Conservation of the State of New York rather than the "State of New York". We think that it is appropriate to leave this matter to the State. Further, in Article 40(A) Greene County would, except for good cause, have the recommendations of the Board binding and give it the power to halt construction work. We think this would be delegating our responsibilities which we can exercise on the basis of the information and report required by Article 40 if the line is not being constructed in accordance with the license.

Greene County asks that the requirement that the Licensee furnish information in Article 40(B) be amended to include Intervenor. In view of their legitimate interest in this matter we shall require the Licensee to make such information available for public inspection in the project area

In Article 41 Greene County would require that the Licensee not acquire another transmission line right-of-way within 25 miles. Such a provision would extend beyond our jurisdiction which is confined in this proceeding to the primary line of a licensed hydroelectric project. It also would require that 1% of the cost of the line would be allocated to landscaping and beautification. The matter of selective clearing, feathering of rights of way and screen and other selective plantings are covered by Article 40(A) relating to the functions of the Board of environmental consultants.

In Article 42 Greene County would provide that each construction contract shall contain an express agreement by the contractors to observe the license conditions naming the Commission, property owners and local governments as third party beneficiaries. Also the provision would permit the Licensee to deduct from payments due the replacement value of trees and shrubs unnecessarily damaged. We think these provisions would tend to delay the work giving the Intervenor and others an opportunity to stop it outside their right to participate in this proceeding. Article 42 does require that contracts incorporate rules and conditions to be observed by contractors in locating spoils, and protecting cultural values and archeological sites. Furthermore, Article 40 covers broadly the treatment of environmental values and natural resources. Further, we are requiring by Article 44 a revised Exhibit F, which is required pursuant to the Commission's Regulations (18 CFR § 4.41). Exhibit F requires details of all land acquisitions including a listing of the entity from whom acquired, the acreage acquired, and the nature and extent of the right acquired.

In Article 43 Greene County would require that Licensee, prior to construction, submit a revised Exhibit R to provide for recreation facilities costing no less than 2% of the cost of the line. Article 43 already provides that on those right-of-way lands acquired, Licensee shall consult and cooperate with the New York Office of Parks and Recreation on incorporating those lands in an Exhibit R. We think that the requirement sought by Greene County would delay construction of the project and be too rigid in application.

In Article 44 Greene County would have Licensee file with the Intervenor, as well as the Commission, revised or additional Exhibits J, K, and M for Commission approval as now required. In addition Greene County would have the exhibits specify the right-of-way, the location of structures, the various measures controlling the environment, and so forth. In our opinion these matters are sufficiently covered by the requirements for such exhibits stated in § 4.41 of our Regulations under the Federal Power Act and by Article 40 below. We shall require these to be available for public inspection in the project area.

The Commission further finds:

The Initial Decision of the Administrative Law Judge issued July 1, 1974, authorizing PASNY to construct a transmission line from Gilboa to Leeds should be adopted as the decision of the Commission as supplemented herein.

The Commission orders:

(A) The Initial Decision of the Administrative Law Judge issued July 1, 1974, is adopted as the decision of the Commission as supplemented herein.

(B) Licensee (PASNY) is authorized to construct a 345 kv overhead transmission line from Gilboa to Leeds, in accordance with applicable Commission regulations, along designated Route B-1 as heretofore described and as described in Appendices A and B hereto. The 1,351.5 KcMil 23/ ACSR non-reflective conductors shall be supported by steel lattice russet surface non-reflective towers and pole-type H-frame structures suitable for conversion at a later time to support two 345 kv lines or one 765 kv line.

(C) The Presiding Administrative Law Judge's rulings remanded by order of October 25, 1973, having been considered in the light of the entire record, are hereby reaffirmed. All additional relief requested directly of the Commission and referred to Administrative Law Judge by the order of October 25, 1973, is also denied.

23/ Formerly referred to as MCM.

(D) The line shall be built, operated and maintained in compliance with (1) the terms of the license for Project 2685, giving appropriate consideration to Commission guidelines as issued November 27, 1970, in Order No. 414, Docket No. R-365, and (2) the following special conditions which are hereby incorporated as part of the license for Project No. 2685.

Article 40. Licensee, in the detailed design and in the planning, construction, and maintenance of the overhead transmission line from Gilboa to Leeds, shall:

(A) retain a board of independent environmental consultants including a safety engineer, a forester, a landscape architect and a transmission line construction engineer, one of whom shall be recommended by the State of New York.

(1) To advise the Licensee as to measures including placement of steel pole H-frame towers at crossings of scenic and other roads as may be needed to protect and develop the environmental values and natural resources of the transmission line right-of-way, and its affected contiguous areas, including but not limited to construction specifications, access roads, stream crossings, selective clearing and "feathering" of rights-of way, excavation, disposal of spoils, use of plant growth retardants, screen and other selective plantings, use of heavy equipment, location and selection of color and design of tower structures and methods of stringing conductors, prevention of soil erosion and slides, construction methods, protection of archaeological and other cultural values, and drainage works such as culverts and bridges. The board shall continue to operate for a period of up to three years following completion of construction of the line, monitoring environmental impacts of the line and making recommendations for such reasonable measures needed to mitigate those impacts,

(2) To submit to the Licensee bimonthly reports prior to construction and monthly reports during construction of the transmission line, and annual reports thereafter during the period the board is retained,

(B) Not less than 30 days prior to the initiation of construction furnish to the Commission and make available for public inspection in the project area detailed information on the proposed location and height of each tower, copies of construction contracts, copies of contracts relating to environmental matters, and such additional information as may be required by this Commission concerning the primary transmission line authorized for construction herein; and Licensee shall

promptly submit to the Commission such actual changes and adjustments as may be made upon the recommendation of the environmental consultant board as provided for in Paragraph A of this Article. Additionally, Licensee shall promptly submit to the Commission copies of the reports of the board of consultants referred to above.

Article 41. The overhead transmission line from Gilboa to Leeds shall be constructed on a right-of-way 250 feet wide, provided that no less than a 25-foot width on either of the outer sides of the right-of-way shall be utilized to a reasonable extent for "feathering" through timbered areas, selective plantings for wildlife habitat, screening cleared areas or roads, improving wildlife uses, and otherwise lessening the scenic impact of the transmission line.

Article 42. Licensee for the purpose of protecting and developing the environmental values and natural resources of the right-of-way and its contiguous lands shall incorporate into contracts for construction of the overhead transmission line from Gilboa to Leeds such specifications that will provide contractors with rules and conditions to be observed in locating spoils, protecting cultural values and any archaeological sites discovered during excavations, and otherwise provide appropriate guidance and lines of communication for the above purposes.

Article 43. Licensee, on those right-of-way lands obtained in fee, shall consult and cooperate with the New York Office of Parks and Recreation in determining the need for incorporating those lands or parts thereof in the Project Exhibit R for public outdoor recreational uses. If appropriate Licensee shall file for Commission approval an amendment of Exhibit R.

Article 44. The Licensee shall file with the Commission and make available for public inspection in the project area a revised Exhibit F and for Commission approval revised or additional Exhibits J, K and M to show the location and description of the transmission line as approved herein. Construction shall not commence prior to the approval of Exhibits J, K, and M.

(E) Exceptions not granted are hereby denied.

By the Commission.

(S E A L)

Mary Kidd Peak,
Acting Secretary.

A88

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FEB 26 1976

UNITED STATES OF AMERICA
Before The
FEDERAL POWER COMMISSION

----- -x
In the Matter of :
POWER AUTHORITY OF THE STATE OF : Project No. 2685
NEW YORK :
----- -x

APPLICATION FOR REHEARING

This application for rehearing is filed with the Commission, pursuant to Section 313(a) of the Federal Power Act and the Commission's Rules of Practice, on behalf of Intervenor Town of Durham, Association for the Preservation of Durham Valley, Brooks Atkinson, Marshall Bell, Barry H. Garfinkel, Alfred Gellhorn, Arthur Goldschmidt, Walton McClure, Earl Morse and Agnes O'Neil ("Town of Durham, et al.").

The application is for a rehearing of the Commission's January 29, 1976 Opinion and Order Affirming and Adopting Initial Decision Authorizing Construction of Proposed Gilboa-Leeds Transmission Line, insofar as said Opinion and Order:

(A) denied Town of Durham, et al.'s exceptions

to the ruling of the Administrative Law Judge denying their motion that the Power Authority of the State of New York ("PASNY") or, in the alternative, the Commission, pay or undertake to pay (i) reasonable attorneys' fees for said Intervenor in connection with this proceeding; (ii) reimbursement of all out-of-pocket expenses and disbursements reasonably incurred by such attorneys; and (iii) fees and expenses of expert witnesses who have appeared in this proceeding on behalf of said Intervenor; and

(B) failed to rule upon Intervenor's exceptions the following numbered Findings of the Administrative Law Judge: 32, 117, 127 and 128.

Grounds For This Application

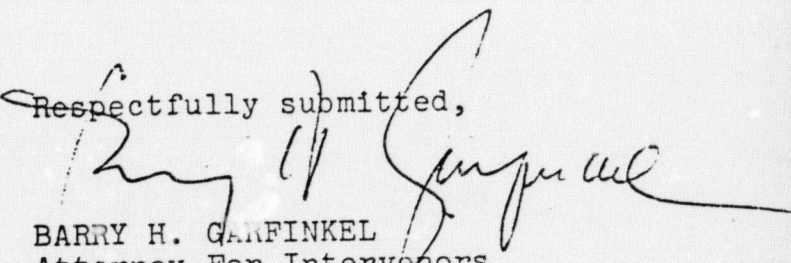
A. Re Fees and Expenses

The Opinion and Order of the Commission on the fees and expenses issue is erroneous and invalid because (i) it is contrary to the applicable provisions of statutory and case-law; and (ii) it is contrary to the record in this proceeding by determining that Intervenor have not "made a case for an award" (Op. p. 21).

B. Re Specified Numbered Findings

The Commission's Opinion and Order respecting the aforesaid exceptions to certain numbered findings is erroneous because the Administrative Law Judge's findings in issue (32, 117, 127, 128) are inaccurate and contrary to the record as more fully detailed in Intervenor's Brief on Exceptions, dated July 30, 1974 at pages 7-10.

Respectfully submitted,


BARRY H. GARFINKEL
Attorney For Intervenor
Town of Durham, et al.
Office and P.O. Address:
919 Third Avenue
New York, New York 10022
Tel.: (212) 371-6000

February 25, 1976

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Power Authority of the State)
of New York)

Project No. 2685

APPLICATION FOR REHEARING,
PETITION TO REOPEN THE
PROCEEDING AND MOTION
FOR A STAY OF INTERVENORS
GREENE COUNTY PLANNING BOARD
AND TOWN OF GREENVILLE

The Greene County Planning Board and the Town of Greenville ("Intervenors") hereby (1) apply for a rehearing of this proceeding, (2) petition to reopen this proceeding and (3) move for a stay of the order contained in FPC Opinion No. 751 herein until the conclusion of the rehearing, the reopened proceeding and any court review hereof or thereof.

REHEARING

Commission Opinion No. 751, issued January 29, 1976, is erroneous in the following respects requiring a rehearing of this proceeding:

1. As pointed out in more detail below under the heading "Reopening the Proceeding", it is based upon a stale record and ignores significant changed facts.

2. The opinion fails to come to grips with the highly irregular and prejudicial manner in which the hearing in this case was conducted. See pages 6-18 of Intervenors' Brief on Exceptions dated July 31, 1974.

3. The opinion violates the National Environmental Policy Act of 1969 and 18 CFR §§2.80-2.81, in that (a) it does not use a systematic, interdisciplinary approach, (b) it was not preceded by a properly prepared or adequate environmental statement, (c) PASNY never filed a properly prepared or adequate Exhibit W and (d) the Record, the Initial Decision and the Opinion contain virtually no consideration of alternatives. Such consideration of alternatives that there was basically concerned with engineering and ignored environmental impact.

A102

4. The opinion violates the Federal Power Act in that no record sufficient to support it has been compiled, certain relevant factors have been ignored, no thorough study of possible alternatives has been made, Staff has breached its affirmative obligation to develop a record and do an independent analysis of projects presented for consideration, the Commission has not lived up to its comprehensive planning responsibilities, and the project approved by the commission will not be in the public interest.

5. The choice of so-called Route B-1 is not supported by substantial evidence.

6. The Commission erred in accepting PASNY's assertion as to the need for the Gilboa-Leeds line (Opinion p. 5). The Commission should have independently investigated this allegation instead of slavishly adopting it as the underpinning of its decision. See p. 21-23 of Intervenor's Brief on Exceptions dated July 31, 1974.

7. The Commission erred in adopting Judge Levy's findings which stated that PASNY operated without public subsidy, which misdescribed the actual status of PASNY's plans for additional facilities, which treated the 1969 Commission license as res judicata on the approval of the Gilboa-Leeds line and ignored the Commission's 1971 modification, which implied that PASNY had made a regional search of alternatives, which ignored Staff's failure to generate alternatives, which overlooked PASNY's admitted plans to acquire two rights of way between Gilboa and Leeds, which implied that full consideration was given to the Petroleum Products Pipeline right of way, which implied that staff had done its own load flow, reliability and stability studies, which suggested that Staff had made a thorough review of long range electrical planning in New York State from all points of view, which implied that the Commission participates or independently checks utility plans, that misdescribed the 1973 Breakabeen application, which omitted mentioning all available Hudson River crossings of transmission lines, and which neglected to describe the true impact of Routes A-1 and B-1. See the Appendix, pp. A-D, of Intervenor's Brief on Exceptions dated July 31, 1974.

8. The Commission erred in failing to adopt the proposed additional findings of Intervenor's, all of which were relevant and supported by substantial evidence. See the Appendix, pp. E-F, of Intervenor's Brief on Exceptions dated July 31, 1974.

A103

9. The license articles 40-44 adopted by the Commission are inadequate to protect the public interest. The board of consultants is a sham and charade without the powers set forth in the proposed license articles set forth in the Appendix, pp. G-I, of Intervenor's Brief on Exceptions dated July 31, 1974. No adequate provision is made for recreation, for fish and wildlife protection, or for prior notice of and information as to the exact construction, mitigation and restoration plans of PASNY. License Articles 43 and 44 should have been as proposed by Intervenor's. It should be pointed out that, but for Commission involvement, PASNY would have had to have met these requirements under the standard procedures applicable to transmission lines in New York State as enforced by the New York State Public Service Commission.

10. The Commission erred in not consolidating this proceeding with the other related proceedings before it relating to facilities of which the Gilboa-Leeds line is an integral part. The Commission completely misdescribes Intervenor's concerns in this connection and falsely claims that to grant the requested relief would require the "precise" locating of other future facilities (Opinion p. 9).

11. It was erroneous for the FPC to rule that doing the kind of comprehensive programmatic review requested by Intervenor's would delay things (Opinion pp. 9-11). Intervenor's made their request some three years ago. Had the Commission promptly ruled on such requests, the necessary reviews would have been completed long before the date Opinion 751 was issued. The Commission cannot now use its own prior default as an excuse not to conduct mandated reviews and investigations. It should also be pointed out that throughout this case, the Commission's obstinate refusal to obey the law has caused delay, after delay, after delay. It is now incredible for the Commission to assert that obeying the law, as requested by Intervenor's, would not be in the public interest because it would cause a delay.

12. The Commission's ruling on Intervenor's fees and expenses is contrary to the facts. The Commission misstates the law on its authority to grant fees and expenses. On rehearing the Commission should notice that on certain key issues, only the Intervenor's presented any witnesses and in fact were solely responsible for creating a record upon which the Commission could consider those issues.

13. It is not true that no participant filed an exception to Judge Levy's finding "The major adverse environmental impact is visual and aesthetic" (Opinion p.4). See the first paragraph under the heading "Specific Exceptions" on p. 4 of Intervenor's Brief on Exceptions dated July 31, 1974.

A104

design and timing of the Gilboa-Leeds line. Then, when it is
14. It is not true that on May 3, 1974 Greene County sent a New York Power Pool plan to Judge Levy (Opinion p. 9). This plan was sent by PASNY who had been caught in a deception. See p. 29 of Intervenor's Brief on Exceptions dated July 31, 1974. It is a major error that neither Judge Levy nor the Commission has seen fit to take notice of, refer to or consider not only that plan, but subsequent ones as well as numerous plans, proceedings, rulings, orders and opinions of the New York Public Service Commission on transmission planning in New York State.

15. The discussion of so-called Route G is erroneous (Opinion p. 15) in that it completely ignores the extensive New York State Public Service Commission proceedings and eventual final approval of the Southern Tier Interconnection.

16. The discussion of direct current alternatives is erroneous (Opinion p. 15) in that it ignores completely the present New York Power Pool Plan to use this alternative as early as 1980 for the same alleged purpose as the Gilboa-Leeds line. See p. 29 of Intervenor's Brief on Exceptions dated July 31, 1974.

17. It is not true that there was no geological issue in the proceeding (Opinion p. 17). The applicant itself presented geological evidence. Why should the applicant be permitted to present the direct testimony of a geologist if the Intervenor's are prevented from cross examining him?

18. It is not true that Frank Burgraff appeared pursuant to a subpoena, was called to attack collaterally New York State's comments or was not supposed to be Intervenor's expert witness. (Opinion p. 18). As explained on pages 16-17 of Intervenor's Brief on Exceptions dated July 31, 1974, Mr. Burgraff appeared by agreement between Intervenor's, the Commission Staff and Mr. Burgraff's own agency as the Intervenor's prime expert witness on the environmental impacts of transmission line routes and New York State transmission line planning practices. Of course, not to let him testify was a major reversible error now perpetuated by Opinion 751.

19. It is not true that the jurisdiction of the New York Public Service Commission does not extend to PASNY lines (Opinion p. 18-19). The Commission's lack of information about the true state of electrical systems planning in New York State is shocking. See Article VII of the New York State Public Service Law and the related Section 149-b.

20. It is not true that the FEIS was prepared by an interdisciplinary team (Opinion p. 19). The team was there as eye wash only. See p. 18 of Intervenor's Brief on Exceptions dated July 31, 1974.

A105

21. The Commission erred in criticizing Intervenor for not studying alternatives (Opinion p. 12). It is hornbook law that this is the obligation of Staff and not of Intervenor. The Commission cannot shield its decision on the grounds that Intervenor did not develop the Record adequately. See pages 40-43 of Intervenor's Brief on Exceptions dated July 31, 1974.

22. The Commission erred in adopting the following findings of the Judge and in not expressly ruling in a reasoned manner on Intervenor's exceptions thereto: 20, 24, 25, 28, 29, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 90, 91, 102, 103, 104, 106, 107, 108, 109, 110, 111, 117, 118, 119, 122, 126, 127 and 128. See p. 4 of Intervenor's Brief on Exceptions dated July 31, 1974.

REOPENING THE PROCEEDING

Commission Opinion 751, issued January 29, 1976, was based upon a Record which closed on September 9, 1973. Time has passed the Record by. There have been dramatic unanticipated developments which require the vacating of Opinion 751 and the reopening of the proceeding to take additional evidence.

The major developments not recognized by the stale Record are as follows:

A. The several year operating history of the Blenheim Gilboa Pumped Storage Project without the Gilboa Leeds line has proved beyond peradventure that the Project and the 345kv system are both reliable and stable with only the Gilboa-New Scotland and Gilboa-Frazier lines in service. Evidence is needed on this operating history.

B. As reflected in official Commission reports, there has been a major change in electric power use and growth in New York State belying all projections in the Record used to justify Opinion 751. Thus by April 1975 even the power companies were admitting that projected system peak for 1990 had shrunk from 49,750 mw to 38,770 mw. Of course, this throws all of the load flow and stability studies underlying this proceeding out the window. New load flow and stability studies and new evidence of project loads is necessary.

C. Whole new questions about the impact of 765kv and other high voltage transmission on public health have been raised, leading the New York State Public Service Commission to convene a common hearing in Cases 26529 and 26559 as to the

A106

issues of audible noise, ozone, induced electric current shocks and electromagnetic and electrostatic field effects of transmission at that and lower voltages. Not only is the Record in this case barren of any evidence on these issues, but to the extent the Opinion assumes an eventual 765kv network in New York State as its basis, it is mistaken. This is because one outcome of the above-mentioned common hearing may be banning 765kv transmission in New York State because of its adverse health and safety effect. Evidence on these issues should be added to the Record.

D. It is necessary to determine the extent to which Commission Chairman Richard Dunham, a former high New York State official, had anything to do with PASNY, James Fitzpatrick, T. Norman Hurd, John Loeb, Jr. or Lewis Stone. As previously pointed out in this proceeding, the three latter persons were reported in the press as having tried to influence the position of certain New York State agencies in this case. There may have been communications, contacts or other related events in which Mr. Dunham might have participated. Undoubtedly PASNY Chairman Fitzpatrick and Commission Chairman Dunham have personally met each other during the pendency of this proceeding. An evidentiary hearing concerning these meetings would seem to be in order.

E. There have been major changes in the long-range plan of the New York Power Pool since the Record in this proceeding was closed. Thus in its April 1975 report to the New York State Public Service Commission the Power Pool stated:

"The long range plan previously described shows significant changes from prior reports, which were necessary and desirable in the light of important developments that have occurred since the 1974 plan was filed on April 1, 1974."

Opinion 751, of course, is based primarily on pre-1973 planning. It is hopelessly out of date. In a few weeks the Power Pool will unveil its 1976 plan which will even be more different. If the Commission really means what it says about comprehensive planning then it cannot base a 1976 decision on pre-1973 data.

F. Based upon some recently disclosed work of Dr. Robert Helliwell at Stanford University, it now appears that high voltage power lines exert significant control over the radiation belts that envelop the earth whose electrical properties make long-range radio communications possible. This newly discovered adverse

A107

impact of the Gilboa-Leeds and related lines is deserving of exploration in this proceeding.

G. Recent research by the former New York State Atomic and Space Development Authority has uncovered new design approaches to reduce the height and width of overhead transmission lines, their right-of-way requirements and relatedly their visibility. None of these approaches by a sister agency of PASNY were ripe for Commission consideration in 1973. They may be now and the proceeding should be reopened for additional evidence on design alternatives.

H. A recent study by the Economic Development Board of the State of New York projects the population of New York City declining by 800,000 by the end of the century and the population of New York State being "substantially lower" than forecasts made as recently as two years ago. This, coupled with recent major declines in Metropolitan Transportation Authority ("MTA") riders on electric-powered trains, the recent cutting back of MTA schedules and the recent abandonment by the MTA of plans to construct significant additions to its electric powered service, all point to the need to take new evidence on the projected load flows to New York City which allegedly make the Gilboa-Leeds line necessary.

STAY

The Order contained in Opinion No. 751 should be stayed until the conclusion of further proceedings in this case, including any court review.

Many years have gone by without a Gilboa-Leeds line. This has harmed no one.

Without a stay, PASNY will probably build the line during the next building season. That would moot this case.

By delaying its own decision for almost 18 months, the Commission itself has already shown how unimportant the construction of this line is in at least the short term.

Therefore, a stay is obviously in the public interest until the important issues raised herein can be finally resolved.

CONCLUSION

Opinion 751 should be vacated immediately or, at least,

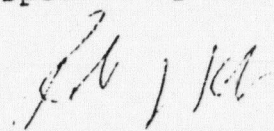
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the order contained therein should be stayed pending further proceedings.

Rehearing should be granted and the Record should be reopened.

February 26, 1976

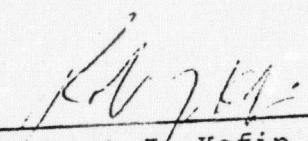
Respectfully submitted,


ROBERT J. KAFIN
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Greene County Planning Board
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(518) 793-6631

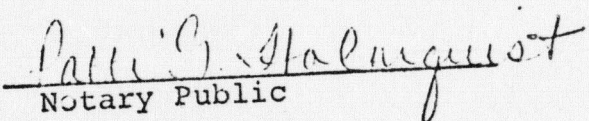
VERIFICATION

State of New York)
) SS:
County of Warren)

ROBERT J. KAFIN, being duly sworn, deposes and says:
I am attorney for The Greene County Planning Board and Town
of Greenville. I have executed the foregoing for and on their
behalf. I am familiar with the contents thereof and, to the
best of my knowledge, information and belief, the facts set
forth therein are true.


Robert J. Kafin

Sworn to before me this
26th day of February, 1976.


Notary Public

PATTI G. HOLMQUIST
Notary Public, State of New York
Qualified in Saratoga County
My Commission Expires March 30, 1977
4614032

LICENSE, PRIMARY TRANSMISSION LINE,
FISH AND WILDLIFE, WILDLIFE,
RECREATION, POWER POOL, COLLATERAL
ATTACK, PRACTICE AND PROCEDURE
(Exceptions), PRACTICE AND PRO-
CEDURE (Reopening), STAY,
RELIABILITY

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Before Commissioners: Richard L. Dunham, Chairman;
Don S. Smith, John H. Holloman III,
and James G. Watt.

Power Authority of the State)
of New York)

Project No. 2685

OPINION NO. 751-A

OPINION AND ORDER DENYING
REHEARING, REOPENING AND STAY

(Issued April 27, 1976)

Per Curiam:

The Town of Durham, Association for the Preservation of Durham Valley, Brooks Atkinson, Marshall Bell, Barry H. Garfinkel, Alfred Gellhorn, Arthur Goldschmidt, Walton McClure, Earl Morse and Agnes O'Neil (Durham, et al.) on February 26, 1976, filed an application for rehearing of Opinion No. 751 issued January 29, 1976. The Greene County Planning Board and the Town of Greenville (Greene County) on February 27, 1976, also filed an application with respect to Opinion No. 751, and a petition to reopen and motion for a stay. In Opinion No. 751 the Commission affirmed and adopted the Initial Decision issued July 1, 1974, and authorized the Power Authority of the State of New York (PASNY), licensee for the Blenheim-Gilboa Pumped Storage Project in Schoharie County, New York, to construct a primary 345 kv overhead transmission line from Gilboa to Leeds. The transmission line would follow designated Route B-1, would be convertible to support two 345 kv lines or one 765 kv line, and would be subject to a number of conditions relating principally to environmental matters. In the opinion of the Commission most of the numerous contentions made by the applicants for rehearing are fully covered by the Initial Decision or Opinion No. 751, so that additional comments would be redundant, but further discussion is appropriate with respect to a number of issues.

Allo

CONTENTIONS ON REHEARING

Greene County says that PASNY never filed a properly prepared or adequate Exhibit W, which relates to environmental matters (18 C.F.R. § 2.81, Appendix A to Part 2). However, Exhibit W was not prescribed until the Commission's Order No. 415-C issued December 19, 1972 (48 F.P.C. 1442), although PASNY applied for its construction authorization on November 24, 1969 and filed proposals for alternate routes for the Gilboa-Leeds line on December 4, 1970. PASNY filed a report on "Transmission Line Planning and Design for Preservation and Enhancement of Environment" on November 24, 1969, and on November 2, 1971, PASNY filed its Environmental Report (Ex. 33) which described Routes A - E and methods of construction with maps and diagrams. It keyed its discussion to the criteria set forth in the National Environmental Policy Act (NEPA). 1/ PASNY, in effect, has complied with NEPA and our applicable regulations. 2/

Greene County says that the Commission erred in accepting PASNY's assertion as to the need for the Gilboa-Leeds line and should have independently investigated its allegation instead of adopting it. The position of Greene County has been independently assessed by the Commission. There is substantial evidence of record as to the need for the Gilboa-Leeds line. In addition to the evidence presented by PASNY, the Commission had before it and considered the testimony of Staff Witness Jessel (Tr. 1188 et seq.) and the Final Environmental Impact Statement (FEIS) prepared by its Staff (Ex. 71, pp. 101-106), all in reaching the Commission determination that a transmission line between Gilboa and Leeds is necessary for project operational purposes which include electric reliability services of the Blenheim-Gilboa plant and transmission capacity to carry power from the project to New York City and points elsewhere throughout the interconnected transmission system networks. See Section 3(11) of the Federal Power Act.

Greene County says the Commission erred in failing to adopt the proposed additional findings of Intervenor. These, as Opinion No. 751 says, are immaterial, unnecessary or draw incorrect conclusions. However, proposed finding "L" states that PASNY has failed to submit either a recreation plan or a fish and wildlife plan for its proposed transmission line right of way. Article 43 of the license, prescribed in Opinion No. 751, provides for the development of a recreation plan in cooperation with the New York Office of Parks and Recreation and, if appropriate, the filing for Commission

1/ 83 Stat. 852 (1970); 42 U.S.C. § 4321, et seq. (1970).

2/ See Order No. 415 issued December 4, 1970 (44 F.P.C. 1531).

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approval of an amendment to Exhibit R. Article 36 prescribed by our order of June 6, 1969 granting the license (41 F.P.C. 712, 718) provides for further Commission regulation of PASNY in respect to the Gilboa-Leeds line by requiring from PASNY a revised Exhibit S relating to fish and wildlife. We shall provide that Exhibit S be supplemented to reflect construction of the transmission line.

Greene County says that it was erroneous to rule that doing the kind of comprehensive programmatic review requested by Intervenor would delay things. We did mention delay if we waited to determine whether a license is issued for the Breakabeen project. For the purposes for which we license the Gilboa-Leeds line it is not possible or necessary to make a comprehensive review of future transmission development in New York and the Northeast region. There is much material in the record on this matter but the plans are not firm, and it was necessary to approve the Gilboa-Leeds line in the light of what the record showed.

We agree that it was PASNY and not Greene County that on May 3, 1974, sent Presiding Administrative Law Judge Levy a later New York Power Pool Plan 3/ which is somewhat different than that appearing in the FEIS and in Appendix E to Opinion No. 751. A map attached to the new plan shows a proposed 765 kv line between Gilboa and Leeds. It is noted that one Gilboa-Leeds 345 kv circuit is required as soon as possible (awaiting FPC approval); the second Gilboa-Leeds 345 kv circuit in 1980; and studies are in progress on the timing of conversion of both 345 kv circuits to single circuit 765 kv operation. 4/ We deny that it is a major error that neither Judge Levy nor the Commission had taken notice of subsequent plans as well as numerous plans, proceedings, rulings, orders and opinions of the Public Service Commission of New York (PSC). After extensive hearings the Judge closed the record, as it was necessary to do in order to arrive at a decision.

Greene County contends that the Commission's discussion of direct current alternatives is erroneous in that it ignores the New York Power Pool Plan to use this alternative as early as 1980 for the same alleged purpose as the Gilboa-Leeds line. It is difficult to see that other lines would have the same purpose as the Gilboa-Leeds line, and, obviously, they would be constructed under different conditions. The 1974 New York Power Pool Plan, referred to above, lists proposed underground transmission lines, but they all appear to be close to cities, principally New York City, where there is urban or suburban development and a high population.

3/ 1974 Report of Member Electric Corporations of the New York Power Pool and the Empire State Electric Energy Research Corporation, April 1, 1974.

4/ Id. Vol. 2, p. 306.

A112

Greene County says that it is not true that there was no geological issue in this proceeding and objected to having cross examination of a geologist limited by the Judge. We meant that there was no geological issue of importance here, and the Judge, in order to qualify the witness, did not have to allow cross examination on a trench-digging project at Niagara Falls, nor at the TVA, nor in the Indus Valley in Pakistan (Tr. 535-539).

Greene County states that it is not true that Frank Burgraff, its witness, an employee of PSC and the State of New York, appeared pursuant to a subpoena, was called to attack collaterally New York State's comments on the Staff Draft Environmental Impact Statement or was not supposed to be Intervenor's expert witness. While Mr. Burgraff appeared through arrangement with the PSC, he was not sponsored by the PSC and appeared in response to a subpoena (Tr. 3518, 3526). Although Counsel for Greene County denied that Mr. Burgraff was called to collaterally attack conclusions and opinions of the State (Tr. 2102), Counsel asked him questions on positions taken by the State and the Judge prevented such inquiries (Tr. 3544, 3558-3559, 3562). We think it entirely appropriate and reasonable that a State employee, who has been called as a witness not be compelled to testify on positions taken by the State, nor should the State be compelled to furnish an expert witness to another party on ultimate conclusions (Tr. 2162, 3528, 3547-48, 3550).

Greene County asserts that it is not true that the jurisdiction of PSC does not extend to PASNY's lines. We referred to statements in the transcript indicating that PASNY was not generally subject to the jurisdiction of PSC. However, we do not intend to make a determination of such a question, nor is it material. Of course, primary lines, such as the Gilboa-Leeds line, are subject to the jurisdiction of this Commission as part of the project works as we have found in granting the license (41 F.P.C. 712, 715).

We agree with Greene County that the primary responsibility for developing alternatives lies with the Commission's Staff which has borne that responsibility. Of course, there is no reason why the Intervenor should not also present evidence on alternatives; we merely note that they have not in any substantial degree done so.

Greene County contends that the Commission did not rule in a reasoned manner on its exceptions to numerous findings of the Administrative Law Judge. Greene County itself merely lists a number of the findings as not supported by credible evidence or substantial evidence. Durham, et al. makes a similar contention. In the opinion of the Commission the Judge's findings as adopted by it are supported by the record. There is no requirement that it make a specific ruling on each

A113 211

exception if the conclusions and reasons are clear. N.L.R.B. v. Wichita Television Corp., 277 F.2d 579, 585 (10th Circ. 1960), certiorari denied, 364 U.S. 871 (1960).

Durham, et al. reiterate their argument that PASNY or the Commission should reimburse the Intervenor for fees and expenses. This matter is covered in Opinion No. 751 and further comment is not necessary.

REOPENING

Greene County argues that because of the time that has elapsed since the record closed on September 19, 1973, the record should be reopened to take additional evidence. In almost all cases circumstances do change in the course of time which inevitably elapses after the record is closed to allow time for the exchange of briefs, the preparation of an initial decision, exceptions, briefs opposing exceptions, study of the record by the Commission and the issuance of a final decision. There would be little hope that the administrative process would ever be consummated if reopening were necessary "because some new circumstance has arisen, some new trend has been observed, or some new fact discovered". I.C.C.v. Jersey City, 322 U.S. 503, 514 (1944); City of Detroit v. F.P.C., 230 F.2d 810, 822-823 (D.C. Circ. 1955), certiorari denied 352 U.S. 829 (1956). In a proper case, of course, it may be necessary and appropriate to reopen the record, but that has not been shown here.

Specifically, Greene County argues that the Blenheim-Gilboa project has been able to operate without the Gilboa-Leeds line in service. The record, however, shows that three lines, not two, are needed for reliability because of possible outages and because of the loads of interconnecting utilities that affect use of the Gilboa-New Scotland and Gilboa-Frazier lines. Further, changes in electric power use and growth in New York State, pointed out by Greene County, have no necessary importance. The Gilboa-Leeds line will have to be built to render the delivery of 1000 Mw of power from the Blenheim-Gilboa plant reliable. A smaller future growth in New York State would not make the output of the Gilboa-Blenheim plant any more reliable. The transmission system should be designed to permit delivery of the power in any case.

The possible impact of 765 kv transmission with respect to audible noise, production of ozone, induced currents or effects on the earth's radiation belts are likewise irrelevant. We are not approving a 765 kv transmission line, but merely requiring that the line to be built be convertible to 765 kv if and when this may become necessary and if it meets relevant standards at the time of proposed conversion with the approval of the Commission, assuming under the circumstances it remains a primary line as determined by Section 3(11), of the Federal Power Act.

A114

We recognize that a 1976 Power Pool plan will be different than that appearing on the 1974 plan which PASNY sent to the Judge. However, our approval of the Gilboa-Leeds line does not depend on the details of Power Pool development, but on the needs, as set forth in Opinion No. 751 and in this opinion and order, including the operation of the Blenheim-Gilboa plant as a reliable source of power.

Recent research by the former New York State Atomic and Space Development Authority with respect to the design of overhead transmission lines is no reason to change our order. Under Article 40 the Licensee is required to retain a board of independent environmental consultants to advise it on, among other things the design of tower structures. The board is to submit reports to the Licensee which is to submit copies to the Commission. Thus there is no reason why the Licensee should not plan and build the most suitable transmission towers, and we shall assure ourselves that this will be done.

The fact that the population of New York City may be lower by the end of the century and that it shows a declining use of the subways again does not change the situation significantly. We are approving the Gilboa-Leeds line to meet present needs. The power needs of the year 2000 are speculative now.

STAY

Greene County asks that the order in Opinion No. 751 be stayed until the conclusion of further proceedings in this case, including any court review. In our opinion it would be improper to grant a stay under the circumstances here. Greene County has not made a strong showing that it is likely to prevail on the merits. While PASNY will probably build the Gilboa-Leeds line if no stay is granted, we do not consider this an irreparable injury to Greene County. The route of the line has been adjusted in the light of the record to cause as little damage to the environment and to cause as little injury to the scenic beauty of the area as possible. On the other hand failure to build the line promptly could cause injury to the users of power generated at the Blenheim-Gilboa plant and would be derogatory of the public interest. See Virginia Petroleum Jobbers Association v. F.P.C., 259 F.2d 921 (D.C. Circ. 1958).

The Commission further finds:

(1) The assignments of error and grounds for rehearing of Opinion No. 751 set forth in the applications for rehearing of Greene County and Durham, et al. present no facts or legal principles that would warrant any change in or modification of the Commission's Opinion No. 751, issued January 29, 1976, as supplemented by the above discussion and as amended below.

ALLS

(2) Good cause has not been shown to reopen this proceeding or to grant a stay as requested by Greene County.

The Commission orders:

(A) The applications for rehearing filed by Greene County and Durham, et al. are denied.

(B) The requests to reopen and to grant a stay by Greene County are denied.

(C) Article 36 as prescribed by the order of June 6, 1969 (41 F.P.C. 712, 718) is amended by adding the following sentence. "Within six months of commencing construction of the Gilboa-Leeds line, Licensee shall file a supplement to Exhibit S to reflect the acquisition of the right-of-way and the construction and maintenance of the line along Route B-1 as specified in the Commission's order of January 29, 1976."

By the Commission. Chairman Dunham, concurring, filed a separate statement appended hereto.

(S E A L)

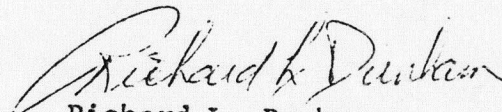
Kenneth F. Plumb,
Secretary.

A116

(Issued April 27, 1976)

DUNHAM, Chairman, Concurring:

While I fully concur in the Commission's Opinion as it is written, I am attaching the present statement in order to respond to one of Greene County's arguments which relates to me personally. Greene County says that one of the reasons for reopening the record is to determine my relationship to PASNY, James Fitzpatrick, T. Norman Hurd, John Loeb, Jr. or Lewis Stone. Greene County states that the three latter persons were reported in the press as having tried to influence the positions of certain New York State agencies in this case. As Director of the Budget for the New York State Government I had no responsibility with respect to PASNY insofar as the subject project is concerned. Furthermore, I have no recollection of any conversations with officials of PASNY or with any of the individuals named above concerning the Gilboa-Leeds power line project.


Richard L. Dunham
Chairman

A117

UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION

Power Authority of the State)
of New York)

Project No. 2685

APPLICATION FOR
REHEARING

The Greene County Planning Board and the Town of Greenville ("Intervenors") hereby apply for a rehearing of the Commission's Opinion and order herein issued April 27, 1976 denying Intervenors' February 27, 1976 petition to reopen and motion for a stay.

Intervenors' petition to reopen stated ample reasons for reopening and these are incorporated by reference here. It was incorrect for the Commission to characterize these as merely "because some new circumstance has arisen, some new trend has been observed, or some new fact discovered".

First, the extraordinary lapse between the closing of the record and the final decision alone puts this case in a wholly different posture than "almost all cases".

Second, the cataclysmic events which occurred since the closing of the record were unprecedented in the entire history of the widespread use of electricity. These hardly can be dismissed with the bland comment "circumstances do change in the course of time". The Commission must surely be aware of numerous instances of record reopenings in regulatory cases involving electric power because of the magnitude and unanticipated events of recent years. One case that is immediately relevant involves the Atomic Energy Commission's (now Nuclear Regulatory Commission) reopening of the record in the Nine Mile Point No. 2 case to take new evidence on load in New York State.

The Commission reflects its lack of expertise on this subject when it states that "changes in electric power use and growth in New York State---have no necessary importance". The Commission should go back to the evidence in the record on this point. The whole load flow and stability analysis which backs up the reliability allegation turns on electric power use and growth which are related to population trends, economic developments and life style patterns. Under certain load assumptions, even the Applicant and staff concede no Gilboa-Leeds line is needed to make the delivery of Gilboa-Leeds output reliable. Therefore, load data is of fundamental importance and the record should be reopened on this issue as well as the others raised.

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On the issue of 765 kv the Commission is engaging in a shell game. First, 765 kv plans are used to justify the location, design and timing of the Gilboa-Leeds line. Then, when it is pointed out that certain health, safety and environmental effects of 765 kv transmission have not been addressed, the Commission claims it is not approving a 765 kv transmission line -- completely ignoring the fact that it had previously rejected alternative locations, designs and timetables on the grounds these were not suitable from an engineering and economic point of view for 765 kv transmission.

It is clear that the Commission did not give proper attention to the petition to reopen the record and a rehearing on this request should be granted.

In the same way, rehearing on the request for a stay should be granted for the reasons set forth in the motion which has been denied. The record is clear that the absence of the line is hurting no one at this time. To say that the construction of the line will not injure intervenors or that such construction can be undone is to state the patently absurd.

May 18, 1976

Respectfully submitted,

ROBERT J. KAFIN
Attorney for Intervenor
Greene County Planning Board
and Town of Greenville
115 Maple Street
Glens Falls, New York 12001
(518)793-6631

VERIFICATION

State of New York)
) SS:
County of Warren)

ROBERT J. KAFIN, being duly sworn, deposes and says:
I am attorney for The Greene County Planning Board and Town of Greenville. I have executed the foregoing for and on their behalf. I am familiar with the contents thereof and, to the best of my knowledge, information and belief, the facts set forth therein are true.

Robert J. Kafin

Sworn to before me this
18th day of May, 1976.

9 Paul G. Holmquist

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UNITED STATES OF AMERICA
FEDERAL POWER COMMISSION



Before Commissioners: Richard L. Dunham, Chairman;
Don S. Smith, and James G. Watt.

Power Authority of the State of New York) Project No. 2685

ORDER DENYING REHEARING
WITH RESPECT TO REOPENING AND STAY

(Issued June 7, 1976)

The Greene County Planning Board and the Town of Greenville (Greenville) on May 20, 1976, applied for rehearing of the Commission's Opinion and Order No. 751-A issued April 27, 1976, denying Greenville's petition to reopen and motion for a stay. The Commission believes that the contentions made by Greenville are sufficiently answered in Opinion No. 751-A.

However, on the matter of a 765 kv line Greenville says the Commission is engaged in a shell game in that it used 765 kv plans to justify the location, design and timing of the Gilboa-Leeds line but would not consider certain environmental effects of the line claiming that it was not approving the line. In Opinion No. 751 issued January 29, 1976, the Commission approved a Gilboa-Leeds line to carry one 345 kv circuit with place for a second 345 kv circuit, convertible to 765 kv use. It was relevant in approving this line to consider whether a 765 kv line could be used in the developing 765 kv grid. It was not necessary at this time to consider environmental standards that might speculatively be applicable at the time of conversion even assuming that the line remains a primary line for use in connection with a licensed project and so subject to Commission jurisdiction.

The Commission finds:

The assignments of error and grounds for rehearing of the Commission's denial of reopening and stay in Opinion No. 751-A and order as set forth in Greenville's application for rehearing filed May 20, 1976, present no facts or legal principles that would warrant any change in or modification of the Commission's Opinion No. 751-A, as supplemented herein.

A120

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The Commission orders:

The application for rehearing filed by Greenville on May 20, 1976, is denied.

By the Commission.

(S E A L)

Kenneth F. Plumb,
Secretary.

FEDERAL POWER COMMISSION

WASHINGTON, D. C. 20426

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MR WILLIAM J. WHITE, JR. CHAIRMAN
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P-2685

A121